

Citation for published version:

Phillips, CJ, Main, CJ, Buck, R, Button, L, Farr, A, Havard, L & Brown, G 2006, *Profiling the community in Merthyr Tydfil: Problems, challenges, and opportunities. Well-being in Work Partnership Phase 1: Final Report.* Well-being in Work Partnership.

Publication date:
2006

[Link to publication](#)

University of Bath

Alternative formats

If you require this document in an alternative format, please contact:
openaccess@bath.ac.uk

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.



PROFILING THE COMMUNITY IN MERTHYR TYDFIL: Problems, challenges and opportunities

Wellbeing in Work Partnership Study 1: Final Report

MARCH 2006

**Ceri J. Phillips
Chris J. Main
Rhiannon Buck
Lori Button
Angela Farr
Lori Havard
Ginevra Brown**

CONTENTS

Acknowledgements	2
Glossary	3
Executive summary	4
Introduction	12
Aim and objectives	14
Design and methods	15
Policy Context	16
Economic policy	17
Health and Social Care Policy	18
Work and Health Policy	23
Other Initiatives	25
Demographic Context	27
Labour Market Context	35
Economic Context	40
Health Status Context	45
Community Context	54
Conclusions and Recommendations	55

Appendix

ACKNOWLEDGEMENTS

Our thanks go to representatives of the agencies who have provided support, advice and encouragement since WiW evolved from the Wales Health Work Partnership. We would like to thank Professor Mansel Aylward, Chair of the Wales Centre for Health, for his passion, commitment and unstinting drive to ensure that WiW has been established, and that the focus of this report, and subsequent phases, has been on his beloved Merthyr Tydfil, where this research is much needed. Secondly, we would wish to offer our thanks to Alistair Neill, Chief Executive of Merthyr Tydfil Borough Council, whose enthusiasm for the initiative in its early days, manifest in bringing together representatives from other key agencies, provided much of the impetus on which WiW has built. We owe a considerable gratitude to Ruth Walker and Anne Phillimore of North Glamorgan NHS Trust. They have been extremely supportive at all stages of the development of WiW, despite enormous pressures brought about by the demands on healthcare facilities but also due to internal organisational issues, and their encouragement at crucial times has been a primary factor in ensuring that this work was undertaken. We wish to acknowledge the invaluable input of other members of the Steering Group – Giovanni Isingrini (Merthyr Tydfil Borough Council), Maria Thomas (Merthyr Tydfil LHB), Nicola John (NPHS and Merthyr Tydfil LHB), Malcolm Ward (NPHS), Linda Badman and Geraint Williams (DWP) – we are very grateful for their support and commitment to driving the WiW initiative forward.

In the compilation of this report we would like to express our appreciation to colleagues at Health Solutions Wales (especially Dave Hopkins, Head of Prescribing Services and Neil Jenkins, Head of Information and IT, Health Solutions Wales) and staff at the Welsh Assembly Government Statistical Division for their advice and provision of data and relevant data sources.

Finally, this report would not have been possible without the funding from the Wales Centre for Health. We thank David Seal and his colleagues in securing the funding, and for his perseverance in keeping us on track to deliver within the agreed timelines.

Diolch yn fawr i chi gyd.

GLOSSARY

A+E	Accident and Emergency
CMO	Chief Medical Officer
DH	Department of Health
DWP	Department of Work and Pensions
GP	General practitioner
HSE	Health and Safety Executive
IB	Incapacity benefit
JSA	Job seekers allowance
LA	Local Authority
LHB	Local Health Board
LSOA	Lower super output area
NHS	National Health Service
NPHS	National Public Health Service
RCT	Rhondda Cynon Taf
WAG	Welsh Assembly Government
WCfH	Wales Centre for Health
WiW	Wellbeing in Work Initiative

EXECUTIVE SUMMARY

Introduction, aim and methods

- The origin of this report lay in the recommendations of the Wales Health Work Partnership Report that the influence of health on work should be made a major research priority, informed by an evidence-based framework, and be of practical utility and demonstrable benefit to the people of Wales at a Community level.
- The Well-being in Work (WiW) partnership was formed to take forward these recommendations, with local organisations in Merthyr Tydfil and leading academic institutions working together to address the impact of health inequalities on work in the region, with lessons learned having wider implications for other communities in the South Wales valleys, the rest of Wales and the UK.
- The WiW initiative involves a programme of research to be conducted in three phases; 1. Setting the socio-economic context, 2. gathering an evidence base and conducting primary research on the interface between health and work in Merthyr Tydfil, and 3. developing and evaluating interventions to improve well-being at work within the community. The current document reports the findings of Phase 1: Profiling the Community in Merthyr Tydfil: Problems, challenges and opportunities.
- The WiW initiative seeks to encompass the goals and aspirations evident in contemporary policy developments emanating from the UK government, the Welsh Assembly Government and local initiatives.
- Particular attention should be paid to *appropriate* and *timely* interventions in an effort not only to maximise the effectiveness and efficiency of interventions and research projects, but also to minimise preventable dysfunction and ineffective or misguided clinical and occupational interventions.
- In this report, a rigorous, quality baseline has been established, which can be used to assess the extent and nature of change, the potential for replication of projects, and the generation of explicit outputs that could assist in policy formulation and development. This has been accomplished by accessing and scrutinising relevant policy documentation; interrogating statistical databases; and, engaging with the project leads of other relevant initiatives and schemes to ensure that issues and data were not missed.

Policy frameworks

- Key policies relevant to well-being in work in the Merthyr Tydfil area include:

- *Health, work and well-being – Caring for our future*, a strategy document produced jointly by the UK Departments of Health and Work and Pensions, along with the Health and Safety Executive.
- *Wales: A Vibrant Economy (2005)*, In Wales, the Welsh Assembly Government (WAG) has sought to use its policies and programmes to promote equality of opportunity, social inclusion and sustainable development, to achieve a more prosperous and fair Wales and one that is fit for the future. WAG economic policies have been formulated as parts of a wider agenda encompassing social justice, environmental improvements, better health, language and learning, and community regeneration. While there have been some successes, there remain areas where above average levels of economic inactivity exist, accompanied by relatively high rates of social, educational and health problems.
- The *Wanless Report* stressed the need for action on a number of fronts to remedy system deficiencies and secure developments in the Welsh health service to ensure improvements in health outcomes for the population. The *Health and Well-being Strategy* demonstrated the need for 'whole-systems' thinking to ensure that fair and sensible priorities were formulated and result in the provision of integrated health and economic policy initiatives to improve the 'health' of the Welsh economy.
- In May 2005, WAG issued *Designed for Life*, which set out its policy aim to 'create a world-class health and social care service in a healthy, dynamic country by 2015.' It stated that the service would be user oriented and based around a whole system approach, supported by targeted performance improvement. WAG also established *Health Challenge Wales* to act as the focal point of efforts to improve health and well-being, recognising that wide range of factors impact on health and well-being and that co-ordinated action can help to create a healthier nation.
- In addition, one of the most significant strategic documents produced in recent times relating to the issue of work and health was *Securing Health Together: A long-term occupational strategy for England, Scotland and Wales*, published by the Health and Safety Executive in 2000. It highlighted three principal reasons for a long-term occupational strategy:
 - To stop people from being made ill by work;
 - To help people who are ill return to work;
 - To improve work opportunities for people currently not in employment due to ill health or disability.It set three targets to achieve by 2010:
 - a 20% reduction in the incidence of work-related ill health;

- a 20% reduction in ill health to members of the public caused by work activity;
- a 30% reduction in the number of work days lost due to work-related ill health.

It also emphasised the pluralistic nature of the problems and their solutions, with a need for concerted, concentrated, multi-factorial, multi-dimensional and multi-agency approaches to target collective efforts on the areas that need it most. The framework offered by this document has also informed other Government initiatives, in particular the *Welfare to Work* agenda and the *Pathways to Work* programme developed by DWP.

- The success of the Pathways to Work Pilot schemes were instrumental in driving the welfare reform Green Paper, *A New Deal for Welfare: Empowering people to work*, launched in January 2006. The basic tenet of the Green Paper is to continue progress to breaking down the barriers that prevent people from fulfilling their potential and, through worklessness and economic inactivity, lead to poverty and disadvantage. There is an explicit commitment to reduce the number of people who leave the workplace due to illness, increase the number leaving benefits, and better address the needs of all those on benefits, with additional payments to the most severely disabled people. The intentions are to improve workplace health by the creation of healthy workplaces and increasing access to good quality occupational health support; to facilitate better absence management and early intervention to assist employees who become ill to stay in work, or support recovery and return of those who are unable to remain in work. There is also a clear recognition that there must be partnership working if the proposals are to be successful, with a whole systems approach evident and a culture of collaboration across all stakeholders.
- One of the most important initiatives designed to specifically tackle the issues faced by the Heads of the Valleys communities, including Merthyr Tydfil, was the Heads of the Valleys Partnership Programme - *Heads – We Win.... a strategic document for the Heads of the Valleys, 2005*. It was recognized that a strong, better balanced economy would offer significantly improved life chances, by helping to break down the structural barriers to work which exist in the area, and encourage engagement within wider Heads of the Valleys life.
- While policy documents and discussions have sought to address issues from a broad perspective and employ whole-systems approaches, policy implementation has tended to be fragmented and compartmentalised into conventional and current organisational and departmental structures.

Demographic Context

- The population of Merthyr Tydfil currently stands at 55,400 – a decline of nearly 8% since 1991, against an overall population for Wales of 2.94 million. The percentage of people aged 65 years and over is relatively high in Park, Town and Vaynor compared to the rest of Merthyr and Wales, while over 30% of the population is aged 19 years and under in Gurnos compared with 22% in Park and 25% across Wales – factors which are relevant in relation to the targeting of interventions in Phase II of the WiW initiative. The percentage of people who are single (never married) ranges from 38% in Park to 49% in Gurnos, nearly double the 28% of singletons found across Wales.
- There has been a consistent upward trend in the number of births to women under 25 in Merthyr over the past few years, with 45% of births in 2003 being to younger women, compared to 31% in Wales.
- Life expectancy at birth for males in Merthyr Tydfil was the lowest in Wales at 73.3 years compared with 75.3 years in Wales and 78.5 years in Ceredigion. Among females, the life expectancy at birth was also the lowest in Wales at 78.1 years, compared with 80.0 years in Wales and 81.9 years in Ceredigion and Monmouthshire. The standardised mortality ratio (1999-2003) in Merthyr was 126, relative to Wales (100), with the ratio for males in Merthyr 156 relative to Wales (125) and 99 for females relative to Wales (77).
- The consequences of social exclusion and deprivation are often manifest in crime and drug and alcohol problems, and despite a fall in recent years, Merthyr still has one of the highest rates of reporting drug problems in Wales. In addition, Merthyr has the highest incidence of anti-social behaviour compared to the other areas within the South Wales Police Force region and an overall crime rate of 32.5 offences per 1000 of the population, compared with 24.7/1000 in Wales in 2003-04.
- There are also clear linkages between levels of deprivation and educational attainment. Merthyr has 28% of its communities in the 10% most deprived communities in Wales in relation to education and a report by the Joseph Rowntree Foundation placed Merthyr as the most deprived authority in Wales in relation to performance at GCSE level; the second most deprived area in terms of attainment at Key Stage II; and, the second most deprived in the proportion of 18 year-olds who go on to higher education. In addition, 44% of the population in Merthyr have no qualifications compared to 33% of the Welsh population, with the percentage rising to 57% in Gurnos.

Labour market context

- The percentage of the population in employment in Merthyr (28-31%) is consistently lower than in Wales as a whole (36-37%) and in Great

Britain, where 40-42% of the population are in employment. There are also differences in the structure of employment between Wales and Merthyr – 19% of employees are in categories 1 and 2 in Merthyr compared to over 24% in Wales, and 28% in GB. In contrast 26% of people in Merthyr are employed in categories 8 and 9 compared with 22% in Wales and 19% in GB.

- The percentage of those who have never worked is 7.9% in Merthyr compared to 5.6% in Wales, but there are wide variations across the Borough with 13.5% of people in Gurnos never having worked. The unemployment rate in Merthyr is consistently higher than the Welsh average, and although not the highest in Wales, the proportion of people who are unemployed or economically inactive and who want work is running in excess of 12% of the working population. The percentage of unemployed who have been out of work for more than 15 years in Merthyr is 34%, and the percentage that have been out of work for more than 10 years is 54% compared to 30% and 48% respectively for Wales.
- While there have been pressures on to increase economic activity rates across Wales, the rate in Merthyr (32%) continues to lag behind the Welsh average (25%) and those achieved across GB as a whole (22%). Therefore, taking all of the above indicators into account, it is not surprising that 36% of communities in Merthyr are in the 10% most deprived communities in relation to employment in Wales.
- Over the past few months there has been a decrease in the number of notified vacancies in Merthyr and surrounding areas. There would therefore appear not to be a great demand for employment within the region and it is necessary to carefully consider the approaches and schemes that can result in improvements in the economic activity rate bearing in mind that employment deprivation currently witnessed needs to be addressed.

Economic context

- The Joseph Rowntree report ranked Merthyr as the most deprived community in Wales in relation to both child poverty and working-age poverty. In Gurnos, for example, 37% of the population are in employment while over 13% of the population have never worked. There is a consistently higher percentage of IB claimants in Merthyr who receive IB than Wales and there is a clear difference between Merthyr and Wales in relation to the duration of time which people have been receiving benefits. In two-thirds of the wards in Merthyr more than 25% of the population are in receipt of state benefits – the highest level of state dependence.
- In addition, gross weekly earnings are lower in Merthyr than Wales – although there may be signs that the differential is closing as annual

gross earnings in Merthyr have increased from 85% of the Welsh figure in 2002 to nearly 89% in 2005.

- The Rowntree report stated that around a third of the 50,000 children living in income poverty in Wales live in the Valley areas. In these areas the rate of child poverty is in excess of 30 per cent, with Merthyr ranked as the most deprived area in Wales.

Health status context

- One half of communities in Merthyr are in the 10% most deprived areas in relation to health in Wales. In addition, Merthyr has consistently higher than average rate of people reporting illness and health problems, the lowest Physical Health score for any area in Wales and the second lowest Mental Health score. Disease prevalence in Merthyr is significantly higher than in Wales in hypertension and respiratory conditions but especially in mental health, arthritis, back pain and diabetes. There are nearly 30% more people in Merthyr suffering with long-term illness and 20% more people who have fewer than 21 teeth.
- Merthyr has one of the highest percentages of low birth-weight babies in Wales, while, along with Blaenau Gwent, it has the highest rate of teenage pregnancies in Wales.
- There were in excess of 1.2 million prescriptions provided in Merthyr during 2004-05 at a cost of £12 million – the highest rate per head of any LHB in Wales. However, the cost per item prescribed in Merthyr LHB is one of the lowest in Wales and 20% lower than the highest cost LHB.
- People in Merthyr are more likely to visit their GP or practice nurse, are more likely to have had a hospital out-patient appointment or attended A+E or been admitted as an in-patient, while they are less likely to have been a hospital day patient, or made contact with a pharmacist, dentist, optician or chiropodist relative to the rest of Wales. However, a greater percentage of out-patient appointments not kept at North Glamorgan NHS Trust than in Wales, with particular problem areas being Palliative Medicine, Paediatrics, ENT, Dermatology, Obstetrics, Gynaecology and Psychotherapy. There are more people waiting for an initial out-patient appointment than the Welsh average, but fewer people than average waiting for in-patient admission and day-case treatment.
- Merthyr has higher rates than the Welsh average in smoking and alcohol consumption above the recommended guidelines and lower rates of exercise patterns and consumption of fresh fruit and vegetables.

Community context

- North Glamorgan NHS Trust serves the residents of Merthyr Tydfil and some surrounding valley communities, with Prince Charles, the district general hospital, having a capacity of over 400 beds and 24,000 deaths

and discharges every year. In relation to primary care, there are 5.9 whole-time equivalents GPs per 10,000 population in Merthyr – a similar rate to Wales. However, there are relatively few female GPs and high proportions of GPs aged 55 and single-handed practices, which highlight some of the problems facing primary care services in Merthyr.

- In terms of community care facilities there are 9 residential and other homes provided by the Local Authority and 9 provided by other agencies, while in terms of leisure facilities there are 10 leisure and community centres, 3 swimming pools, a Sports Development Centre and a Climbing Centre.

Conclusions and recommendations

- This report has clearly demonstrated that there are some very real problems in Merthyr in terms of unemployment, low income, poverty in children and adults, poor health status, and a high incidence of risk factors for poor health including smoking, alcohol consumption and poor diet. Remedies for these problems require major investment and cultural change in the region, which probably necessitate a long-term perspective.
- However, in the short to medium term, we can look to help individuals, particularly those in the most deprived situations, which should also contribute to the more gradual overall improvement of the region in terms of reducing deprivation and improving health. This needs to be made a high priority for government, as the deprivation in this region has very serious consequences for the people living in these communities (including child poverty and reduced life-expectancy), and this needs to be tackled with immediate effect.
- When we investigate health and work in Merthyr in subsequent phases, it is likely that there will be relationships between health and work that are general and are likely to apply in other communities, but it is also likely that there are regionally specific cultural factors involved that could be specifically targeted for intervention. However, in light of this report, it is essential that sufficient weight is given to the real practical barriers to work in this community, including the poor health status of people living in this region relative to the rest of Wales and GB as a whole. Interventions that focus on health at work in this community without taking into consideration its socio-economic context are unlikely to succeed.
- The impact of work on health needs to be investigated further in terms of the financial, social, and psychological benefits of work in itself. The harmful effects of worklessness have been well documented, but the evidence for a beneficial effect of work on health has not been well established, although there is some preliminary evidence to suggest a

positive relationship. Workplaces need to become healthier not just in terms of avoiding injury and illness and improving rehabilitation (as emphasised by HSE), but also in terms of promoting good health in practical, cost-effective, sustainable ways.

- On a more positive note, there have been improvements in some of the key variables in this region that are encouraging in terms of the future well-being of the community (e.g. less unemployment, greater income etc). The WiW programme of research will contribute to this improvement of the health and prosperity of people in this region.
- While many of the strategic plans and policy documents relevant to this work acknowledge the need for a 'joined-up' approach to improving the socio-economic conditions in Merthyr and elsewhere, there is limited evidence that anything significant is being done to translate this into real action with meaningful outputs and deliverable outcomes. It needs to be clear what we mean by joined-up approaches and how they can be taken forward to secure improvements for the community in the short-term and from a longer-term perspective.
- We are left with is a notion of Merthyr and its environs as an archipelago of islands. Bridges and communication networks are needed for this community to prosper. The problems are widespread across the community but, as stated above, many of them have a common set of origins, and for which there may be common remedies.
- We propose that subsequent phases do not just look at a person's health at work in isolation. The adoption of a bio-psychosocial model is essential in understanding the complex and dynamic relationship between health and work, looking at the individual within the context of their place, status and role in the community and place of work.

1. INTRODUCTION

The Wales Health Work Report recommended that the influence of health on work should be made a major research priority, which needed to be informed by an evidence-based framework, and be of practical utility and demonstrable benefit to the people of Wales at a Community level. It further recommended the development of a focused and integrated initiative as a vehicle for integrating health and occupational initiatives at a community level. The initiative should enable the design, implementation and evaluation of new initiatives focused specifically on aspects of the health-work interface against a backdrop of a clearly delineated health, economic and occupational profile. Therefore, the Well-being in Work (WiW) partnership was formed to take forward these recommendations, with local organisations in Merthyr Tydfil and leading academic institutions working together to address the impact of health inequalities on work in the region. It was envisaged that the lessons learned would have wider implications for other communities in the South Wales valleys, the rest of Wales and the UK.

It was also advocated in the Wales Health Work Report that potential research should seek to encompass the goals and aspirations evident in contemporary policy developments emanating from the UK government, the Welsh Assembly Government and local initiatives. Particular attention should be paid to *appropriate* and *timely* interventions in an effort not only to maximise the effectiveness and efficiency of interventions and research projects, but also to minimise preventable dysfunction and ineffective or misguided clinical and occupational interventions.

In order to facilitate such research, it was considered essential that a rigorous, quality baseline be established to assess the extent and nature of change, the potential for replication of projects, and the generation of explicit outputs that could assist in policy formulation and development. In addition, a systematic review of the literature was proposed. Due to delays in getting the research started, it was not feasible to conduct a systematic review at this stage. In its place, a literature search was undertaken to underpin subsequent developments within the programme of research. The results of this search are shown in Appendix I.

This report outlines the relevant policy context, the demographic composition of the community in Merthyr Tydfil relative to Wales, an analysis of the labour market context and relative income levels, an assessment of the health status of the population, and finally, a review of the health and social care facilities available to the community. The report

concludes with an overview of the benefits and limitations of adopting this approach to community profiling, and highlights requirements for further research.

2. AIM OF THE RESEARCH

The aim of this study was to establish a baseline of socio-economic and health related information to contextualise subsequent projects and studies in the WiW Initiative, to enable the extent of change following interventions to be assessed and to consider the potential for project replication in other areas.

The specific objectives were to:

- Establish a socio-economic profile of Merthyr Tydfil and its environs, including both macro- and micro-analyses and compare with the rest of the South Wales Valleys area, Wales and the U.K.
- Survey current health-care provision in Merthyr Tydfil at a macro- and micro-level and compare with the rest of Wales and with the UK.
- Examine utilisation rates and trends at primary care facilities within Merthyr LHB from 'existing databases'.
- Survey benefits and employment history and status of people in Merthyr Tydfil and compare with the rest of Wales and the UK.
- Describe and evaluate current occupational and health improvement initiatives, by DWP, Merthyr Tydfil Borough Council, Merthyr Tydfil Local Health Board, North Glamorgan NHS Trust, Welsh Assembly Government in Merthyr Tydfil and private sector employers in Merthyr Tydfil and its environs.
- Interface with other project developments designed to improve health and facilitate engaging in work (e.g Heads of the Valleys Lifelong Learning Project; Heads of the Valleys Economic Development initiative).

3. STUDY DESIGN and METHODS

- A systematic search of the literature was undertaken using rigorous scientific methodology.
- In addition, relevant policy documentation was accessed and scrutinised to access relevant data and issues.
- Statistical databases held by participating organisations (e.g LA, LHB, WCfH, DWP, WAG) and others were accessed to obtain most recent and relevant data.
- Discussions were held with the project leads of other relevant initiatives and schemes to ensure that issues and data were not missed.

4. POLICY CONTEXT

The recommendations of the Wales Health Work Report have been clearly reflected in strategy documents produced both by UK government departments and the Welsh Assembly Government (WAG). For example, the importance attached to joining up the elements relating to the health/work interface was highlighted in a strategy document produced jointly by the UK Departments of Health and Work and Pensions, along with the Health and Safety Executive.

“While much good work, both inside and outside Government, is already going on to improve the health and well-being of working age people, we need a strategy that will bring together all the elements. If we co-ordinate our approach and identify gaps where we need to carry out further work, then we will achieve much more to help that improvement in health and well-being. *Health, work and well-being – Caring for our future* demonstrates our commitment to making a real difference to the health and well-being of working age people. It also forms a key component of the welfare reform, public sector reform and public health agendas.” [1]

In Wales, there has been an attempt to span traditional policy areas and adopt an integrated approach, with WAG using its policies and programmes to promote equality of opportunity, social inclusion and sustainable development. This has been detailed in the *Well Being in Wales*¹ document. The aims of such an approach are to achieve a more prosperous and fair Wales; a Wales that is fit for the future. Of relevance to this study are the five strands that underpin the intended approach to improving well-being in Wales, which are:

- Ensuring that all public policies and programmes, not just health policies, contribute in some way to improving people’s health and well being.
- Creating social and physical environments that encourage and support well being.
- Developing people’s personal skills and knowledge so that they can take greater responsibility for health and make informed choices for their health and their children’s health.
- Strengthening communities as a critical factor in improving people’s well being.
- Ensuring health services are effective, efficient and accessible to all, and have a stronger role in preventing illness and disease.

¹ <http://www.wales.gov.uk/subihealth/content/wellbeing/wellbeinginwales-e.htm>

However, it was noticeable that while policy documents and discussions have sought to address issues from a broad perspective and employ a whole-systems approach, the implementation of policy has tended to be fragmented and compartmentalised into conventional and current organisational and departmental structures. The WiW Partnership aims to nurture and facilitate a joined-up approach, and in this regard has established a network of stakeholder organisations, which have been instrumental in developing the Partnership and the work to date.

The intention of this section of the report to highlight some of the policy frameworks, which impinge on the issues underlying the relationship between health and work, drawing on relevant documentation to contextualise the development of the community profile relating to Merthyr Tydfil and its environs.

ECONOMIC POLICY

Economic policies emanating from WAG need to be viewed in context of its strategic agenda set out in *Wales: A Better Country* (2003)², which acknowledges that economic development has to be part of a wider agenda encompassing social justice, environmental improvements, better health, language and learning, and community regeneration. While the intention is highly commendable, the evidence for such a joined-up approach remains in its embryonic phase.

WAG has sought to develop its strategic framework for economic development in the consultation document *Wales: A Vibrant Economy* (2005)³, in which it focuses on encouraging sustainable growth through helping more people into work, and helping to raise earnings for those in work by maximising the value created in the Welsh economy. In highlighting some of the successes in improving employment levels, reducing unemployment and raising earnings, the document recognises that such gains have not been witnessed across all areas, and there remain geographical areas which need specific attention. Above average levels of economic inactivity tend to be concentrated in areas where other social, educational and health problems have relatively high prevalence levels. The document emphasises the need for partnership working across public,

² <http://www.wales.gov.uk/themesbettercountry/index.htm>

³ <http://www.wales.gov.uk/subitradeindustry/content/wave/wave-e.htm>

private and voluntary sectors, and provides, as an example, the development of a regeneration framework for the Heads of the Valleys area.

Among its proposed strategic economic development themes are two aspects which have particular relevance for the overall aims of the WiW initiative;

- supporting job creation and helping individuals to tackle barriers to labour market participation in the world of work.
- investing to regenerate communities and stimulate economic growth across Wales.

HEALTH AND SOCIAL CARE POLICY

The provision of health services and the extent of resources required have been among the most contentious political issues in the relatively short history of WAG, and indeed for virtually all governments in the developed world. The performance of the NHS in Wales has been subjected to both intense media scrutiny and academic debate.

The *Wanless Report* (The Review of Health and Social Care in Wales, June 2003)⁴ clearly emphasised that the current situation was unsustainable, and stressed the need for action on a number of fronts to remedy system deficiencies and secure developments in the Welsh health service to ensure improvements in health outcomes for the population. The Assembly has also committed itself to redressing the inequalities in health that exist within Wales and in comparison to the rest of the UK.

The development of health services in Wales over a ten year period was documented in the Assembly's NHS Plan published in 2001 – *Improving health in Wales – a plan for the NHS with its partners*,⁵ an ambitious set of proposals designed to improve the health of the people of Wales.

Another feature of health policies has been the focus on collaboration and co-operation across agencies through formal and informal alliances. The very nature of the title of the 10-year plan hinted at partnership, while the First Minister and the Minister for Health and Social Services also paid particular attention to the importance of collaborative ventures.

⁴ <http://www.wales.gov.uk/subieconomics/hsc-review-e-htm>

⁵ http://www.wales.gov.uk/healthplanonline/health_plan/content/nhsplan-e.pdf

“The Plan is rooted in a set of partnerships. These involve public bodies planning, implementing and working on policies in a joined-up way.”

[Foreword by First Minister]

“.....improving the health of the nation poses challenges that no one organisation can meet. Strong partnerships between the NHS, local government, communities and the voluntary sector are at the heart of our new and inclusive approach to health.”

[Foreword by Minister for Health and Social Services]

A variety of innovative multi-agency projects have been developed in Wales during recent years involving collaboration between statutory, voluntary, and independent providers. However, there has been limited awareness among providers about a number of these initiatives. There is a need for wider dissemination of good practice and removal of other barriers to partnership working between health and social care agencies if appropriate patient/client-centred care is to be delivered.

The vision of a seamless system of health-care commissioning and delivery has been advocated as an antidote to the recent experiences of patients moving through a complex maze of inter-organisational, inter-agency, inter-professional, and inter-budgetary organisations, all with competing interests and objectives, to receive their various care components. While there is some evidence of a change in policy direction, WAG expenditure trends and plans do not necessarily reflect a move towards making this different mode of thinking about improving the health of the people of Wales a reality, with emphasis in resource allocation firmly remaining on traditional budgetary areas.

The *Health and Well-being Strategy* ⁶ demonstrated a commitment to increase the effectiveness, efficiency and financial management of health and social services. The document highlighted the need for these organisations to be more responsive to the needs of increasingly well-informed patients and clients, and ensure better access for those most in need.

Looking to the future, the *Health and Well-being Strategy* indicated that the NHS would have to assess the possible long term impact of advances in genetic science on its services and ways of working, alongside identifying the factors affecting demand for care services. This ‘whole-systems’ thinking was required at an early stage to ensure that fair and sensible

⁶ <http://www.wales.gov.uk/subihealth/content/wellbeing/wellbeinginwales-e.htm>

priorities are formulated resulting in the provision of integrated health and economic policy initiatives having long-term prospects of improving the 'health' of the Welsh economy.

One of the organisations to emerge during this period was the Wales Centre for Health, which has among its functions, the collation of public health data and evidence to assist in the policy making process and the co-ordination and surveillance of health trends and risks and threats to health and well-being. It is this organisation which has provided the financial support for this project to be undertaken.

In May 2005, WAG released the *Designed for Life*⁷ document, which sets out their policy for addressing the issues identified above. It states WAG's ambition to create a world-class health and social care service in a healthy, dynamic country by 2015. It initially draws on the objectives set out in 2001 within *Improving Health in Wales: A Plan for the NHS with its Partners*. Four years on there is a need to take stock of progress to date and build on what has been achieved so far. It asserts that the decision to concentrate on delivering a healthy Wales through partnership was the right one and will pay increasing dividends in the future.

It sets out a plan of action until 2015, to describe the health care and social care services that the people of Wales can expect in 2015, and delivered through a series of 3 year strategic frameworks which will form the context within which annual improvements will take place.

The document details the NHS Wales redesign challenge, philosophy and principles. It states that the service will be user oriented and based around a whole system approach, supported by targeted performance improvement. Commissioning will be driven by clear and rigorous standards of clinical governance. The design components of the strategy are: -

- A national Health and Social Care Strategy incorporating new contracts for primary care providers; changes in social care; technological enhancement and workforce modernisation.
- Services provided to people at home or in their local communities, including the increased use of home based technology supported by local health campuses.
- Acute services will work in concert with primary care to give easy access to the local services that people use most frequently

⁷ <http://www.wales.gov.uk/subihealth/content/keypubs/pdf/designed-life-e.pdf>

including emergency and planned care together with support for chronic disease management etc.

- Specialised and Critical Care Centres will be focused in a few major centres that will have the potential to act as centres of excellence. The services included in these centres will be further considered.
- Highly specialised “tertiary-level” hospital services will link with the specialised centres providing rapid access when needed and to ensure that wherever possible these services can be provided more locally.

These services will look and feel very different to the public, who will have easy access to information about health and social care matters and their own condition. “Grid technology” – a service for sharing computer power and data storage capacity over the internet - will be used to allow faster, better use of all information relating to an individual’s care with electronic care pathways and social care records allowing people to monitor their quality of care.

Home will be a health improvement setting and treatment centre using the home monitoring through telemedicine. The latest technology will seek to ensure that hospital admissions are reduced, and return to home will be quicker. Action will be taken at several levels to keep people well and independent. Health improvement will become a growing focus with its own policy and development and will continue to foster efforts to target the causes of poor health.

The NHS, local government and their partners will put their weight behind the effort to strengthen the approach to prevention at all levels. Even greater efforts will be made to help people look after their own health better, based on balancing clearer service entitlements and greater responsibility for health. There will be a concerted effort to maintain people’s independence with a range of telecoms equipment devices to help guard against risks in the home.

For those people with significant care needs, technological aids will become widespread giving people the opportunity to remain in their own home. People with long-term conditions will have a multi-agency personal care plan developed that all the relevant agencies understand and support. Individuals will be helped to become ‘expert patients’ taking a high degree of control over their treatment. Pre-planned care will be organised around the recipient’s needs and convenience. There will be more information, a wider range of treatment options and greater certainty in the system.

Strategic Framework No1

The targets for the next three years will be to provide: -

- More prevention through screening, health promotion targeting at risk groups
- Better access through improved waiting times, faster emergency response and streamlined care pathways for the priority disease areas
- Better services for mental health, chronic diseases, children, young and older people's services and cancer
- A new Human Resources Strategy incorporating workforce development and modernising the learning infrastructure
- Enabling change through performance management, research and evaluation, benchmarking, reconfiguration, education and training, financial and clinical leadership, clinical networks, planning and commissioning and information management.

Strategic Framework No2

This strategy will build on the achievements of the previous three years.

This will enable the Assembly, service, partners and patients to concentrate on: -

- Setting Clinically Relevant Targets
- Refocusing on wellbeing and health inequalities
- Developing the workforce

Strategic Framework No3

The theme for this strategic framework is ensuring full engagement. This will commence with a strategic appraisal of the seven work-strands identified in the Wanless report: -

- Engagement of individuals and communities
- Re-shaping of services
- Seamless provision
- Evidence based practice
- Improving performance
- Delivery
- Pace of change

The outcome of this appraisal will gauge how far there is still to travel to achieve the vision for 2015, but it is also will help to inform the nature of interventions and programmes that will need to be implemented and assessed if they are to be of relevance within the overall context of health

policy within Wales.

WAG has also established Health Challenge Wales⁸ to act as the focal point of efforts to improve health and well-being, recognising that wide range of factors impact on health and well-being and that co-ordinated action can help to create a healthier nation. The scheme was launched in January 2005 and has been a noticeable feature of a number of initiatives which have been badged with the Health Challenge Wales logo. However, it was set in the background of the report produced by the Chief Medical Officer Wales – *Health Status Wales 2004-05*,⁹ which highlighted the status of the health of the nation and the work that was required to improve it. Much of the data and information contained in the report and that produced by the Local Government Data Unit Wales and Wales Centre for Health¹⁰ will be utilised and developed in subsequent sections.

WORK and HEALTH POLICY

One of the most significant strategic documents produced in recent times relating to the issue of work and health is *Securing Health Together: A long-term occupational strategy for England, Scotland and Wales*, published by the Health and Safety Executive in 2000.¹¹ It highlighted three principal reasons for a long-term occupational strategy:

- To stop people from being made ill by work;
- To help people who are ill return to work;
- To improve work opportunities for people currently not in employment due to ill health or disability.

It set itself three targets by 2010, that is to achieve:

- a 20% reduction in the incidence of work-related ill health;
- a 20% reduction in ill health to members of the public caused by work activity;

⁸ <http://www.healthchallenge.wales.gov.uk>

⁹ <http://cmo.wales.gov.uk/content/publications/reports/index-e.htm>

¹⁰ Health in Wales: A Report on Health in Wales based on the results from the 2001 Census, August 2005. Local Government Data Unit Wales and Wales Centre for Health.

¹¹ http://ohstrategy.co./pdf_files/8422document.pdf

- a 30% reduction in the number of work days lost due to work-related ill health.

It also emphasised the pluralistic nature of the problems and their solutions, with a need for concerted, concentrated, multi-factorial, multi-dimensional and multi-agency approaches to target collective efforts on the areas that need it most. The role of partnership working was also highlighted, involving Government, Local Authorities, individuals, large and small employers, trade unions and health professionals.

The strategy provides a framework that can be used to achieve its stated goals and by identifying the key areas for action and setting them in train. It highlighted three specific objectives to ensure that:

- Work does not damage the health of workers or members of the public
- People are not excluded from work due to ill-health or disability
- Individuals who have been ill are rehabilitated.

and emphasised that one of the keys to developing this strategy would be the involvement of all those who have an interest in preventing ill health at work, treating ill-health and rehabilitating those who have suffered.

The framework offered by this document has also informed other Government initiatives, in particular the *Welfare to Work* agenda and the *Pathways to Work* programme developed by DWP, which were central to the aim of reducing the rates of workers moving on to, and remaining on, incapacity benefit. The success of the Pathways to Work Pilot schemes¹² were instrumental in driving the welfare reform Green Paper, *A New Deal for Welfare: Empowering people to work*,¹³ launched in January 2006.

The basic tenet of the Green Paper is to continue progress to breaking down the barriers that prevent people from fulfilling their potential and, through worklessness and economic inactivity, lead to poverty and disadvantage. The Green Paper has established three specific targets:

- reduce by 1 million the number on incapacity benefits;

¹² <http://www.dwp.gov.uk/asd/asd5/wp26.pdf>

¹³ http://www.dwp.gov.uk/aboutus/welfarereform/docs/A_new_deal_for_welfare-Empowering_people_to_work-Full_Document.pdf

- help 300,000 lone parents into work; and
- increase by 1 million the number of older workers;

There is an explicit commitment to reduce the number of people who leave the workplace due to illness, increase the number leaving benefits, and better address the needs of all those on benefits, with additional payments to the most severely disabled people.

The intentions, outlined in the document, are to improve workplace health by the creation of healthy workplaces and increasing access to good quality occupational health support; to facilitate better absence management and early intervention to assist employees who become ill to stay in work, or support recovery and return of those who are unable to remain in work – key in this is the role of GPs and primary care teams in the management and recording of sickness absence, with possible incentives in place to reward those who take active steps in supporting individuals to remain in or return to work; and, to extend provision of the Pathways to Work programme.

There is also a clear recognition that there must be partnership working if the proposals are to be successful, with a whole systems approach evident and a culture of collaboration across all stakeholders.

OTHER INITIATIVES

One of the most important initiatives designed to specifically tackle the issues faced by the Heads of the Valleys communities, including Merthyr Tydfil, was the Heads of the Valleys Partnership Programme launched by the Minister for Economic Development in November 2004. 'Heads – We Win....' a strategic document for the Heads of the Valleys, 2005, ¹⁴ set out the intentions, namely to develop an area with:

- strong, vibrant and well maintained town centres, linked by good quality public transport;
- a full range of modern leisure, cultural and social facilities;
- significantly improved health care (especially primary health care);
- better quality and more appropriate education and skills training for both children and adults (including access to high quality schools);

¹⁴ <http://www.wales.gov.uk/subitradeindustry/content/headsofvalleys/index.htm>

- the ready availability of a full range of housing types (including affordable and executive housing) especially within town centres;

all underpinned by strong, clean and safe communities. It was recognised, within the document, that a strong, better balanced economy would offer significantly improved life chances, by helping to break down the structural barriers to work which exist in the area, and encourage engagement within wider Heads of the Valleys life.

It is within this context that the WiW partnership is located, and the remainder of this report seeks to highlight some of the context, issues, problems and challenges, which need to be overcome if the aims of the Welfare Reform Green Paper and other policy initiatives are to prove to be successful.

5. DEMOGRAPHIC CONTEXT

This section of the report outlines the demographic composition of the community, introduces the notion of social exclusion and also contains a description of relative educational performance within Merthyr Tydfil.

DEMOGRAPHIC COMPOSITION

The population of Merthyr Tydfil currently stands at 55,400 – a decline of nearly 8% since 1991, against an overall population for Wales of 2.94 million.¹⁵ The gender split is 48% males and 52% females and mirrors the Welsh split. The structure of the population in each of the wards within Merthyr is highlighted in Table 5.1.

TABLE 5.1: Age distribution of population in Merthyr - 2001

Wards	All People (n)	0-4 years (%)	5-15 years (%)	16-19 years (%)	20-44 years (%)	45-64 years (%)	65 years and over (%)
Bedlinog	3,399	6	15	6	33	26	15
Cyfarthfa	6,141	5	16	6	32	26	15
Dowlais	6,646	6	16	5	34	23	15
Gurnos	5,034	7	17	6	33	22	15
Merthyr Vale	3,925	7	17	6	32	24	15
Park	4,307	4	13	5	31	25	21
Penydarren	5,253	6	17	6	32	23	16
Plymouth	5,005	6	15	5	32	25	16
Town	6,554	5	15	4	32	25	19
Treharris	6,252	6	17	5	34	24	14
Vaynor	3,465	6	14	4	31	27	18
MERTHYR	55,981	6	16	5	33	24	16
WALES	2,903,085	6	14	5	32	25	17

Note: figures may not add up to 100% due to rounding

The noticeable feature is the relatively high percentage of people aged 65 years and over in Park, with higher than average percentages in Town and Vaynor compared to 16% in Merthyr and 17% across Wales. The difference in age structure is also evident at the other end of the spectrum, with over 30% of the population aged 19 years and under in Gurnos compared with

¹⁵

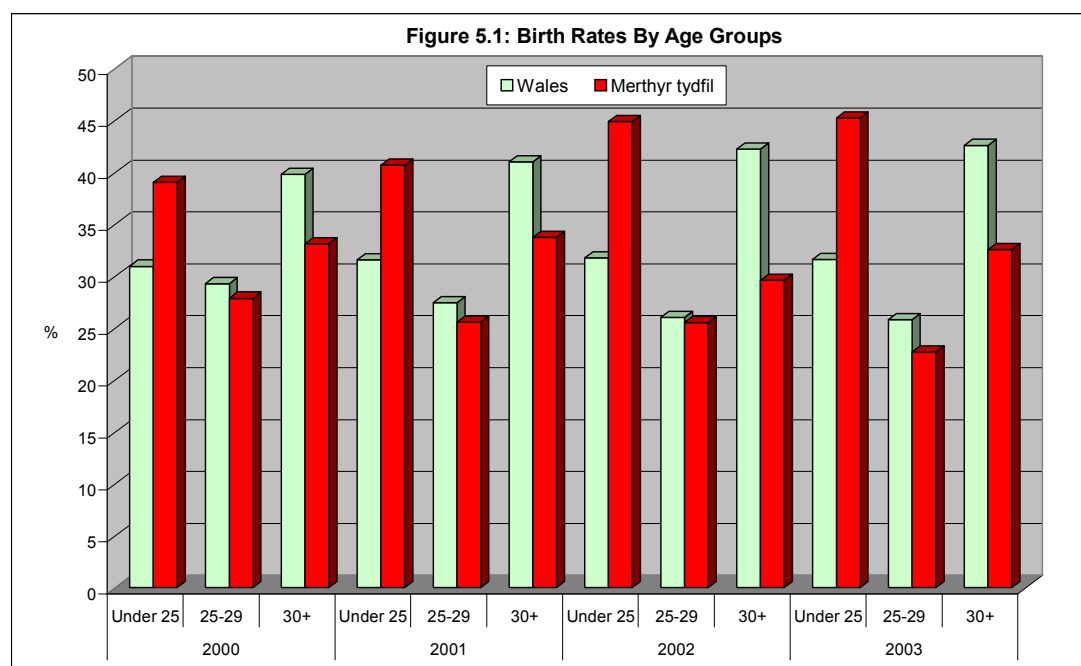
<http://www.wales.gov.uk/keypubstatisticsforwales/content/publication/health/2004/hsw2005/hsw2005-ch1/hsw2005-t1-3.xls>

22% in Park and 25% across Wales – factors which are relevant in relation to the targeting of interventions in Phase II of the WiW initiative.

In terms of household composition there was general consistency in the proportion of households with dependent children – ranging from 43% in Town, 44% in Park to 53% in Gurnos. The percentage of people who are single (never married) ranges from 38% in Park to 49% in Gurnos, nearly double the 28% of singletons found across Wales, while there was consistency across the Borough in the percentage who are re-married, separated and divorced, in line with figures across Wales. Park has the highest rate of widowed people at 12% with the figure across Wales at 9%.

The age breakdown of dependent children is very similar in Merthyr to the situation in Wales as a whole – 24% pre-school age (25% Wales); 40% primary school age (40% Wales); and, 36% secondary school age (35% Wales).

There has been a consistent upward trend in the number of births to women under 25 in Merthyr over the past few years, with 45% of births in 2003 being to younger women, as shown in Figure 5.1. In Wales, as a whole, the birth rate among younger women has been consistently around 31%. This differential also reflects the number of teenage pregnancies in Merthyr relative to Wales, an issue which will be discussed in more detail in section 8.

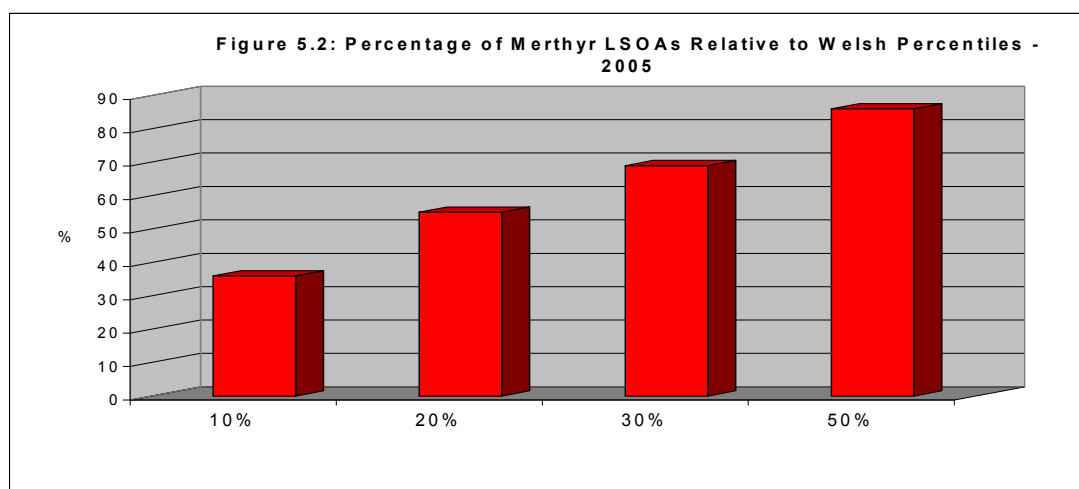


Life expectancy at birth for males in Merthyr Tydfil (2002) was the lowest in Wales at 73.3 years compared with 75.3 years in Wales and 78.5 years in Ceredigion - a difference of 5.2 years compared with Merthyr. Among females, the life expectancy at birth was also the lowest in Wales at 78.1 years, compared with 80.0 years in Wales and 81.9 years in Ceredigion and Monmouthshire – a difference of 3.8 years compared with Merthyr.¹⁶ The Chief Medical Officer of Wales reported that death rates in Merthyr Tydfil were almost 50% higher than in Ceredigion,¹⁷ but, as highlighted, “there can be substantial differences within such areas as well as between them.”

The standardised mortality ratio¹⁸ (1999-2003) in Merthyr was 126, relative to Wales (100), with the ratio for males in Merthyr 156 relative to Wales (125) and 99 for females relative to Wales (77).¹⁹

SOCIAL EXCLUSION

The issue of deprivation and social exclusion runs as a central theme throughout this report. In this section the issue is introduced and an overview taken of where Merthyr sits relative to other authority areas in



¹⁶

<http://www.wales.gov.uk/keypubstatisticsforwales/content/publication/compedia/2004/dwlas2004/dwlas2004-ch1/dwlas2004-t1-14.xls>

¹⁷ <http://cmo.wales.gov.uk/content/publications/reports/health-status-wales-e.pdf>

¹⁸ Calculated as the number of actual deaths in the period as a percentage of deaths which would have been expected if the population had experienced the sex-and-age specific mortality rates in Wales as a whole during the period.

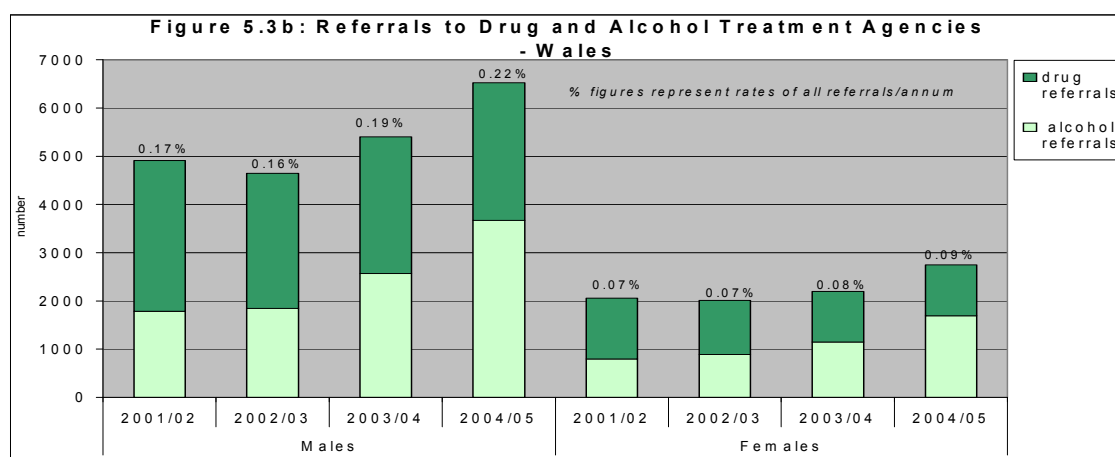
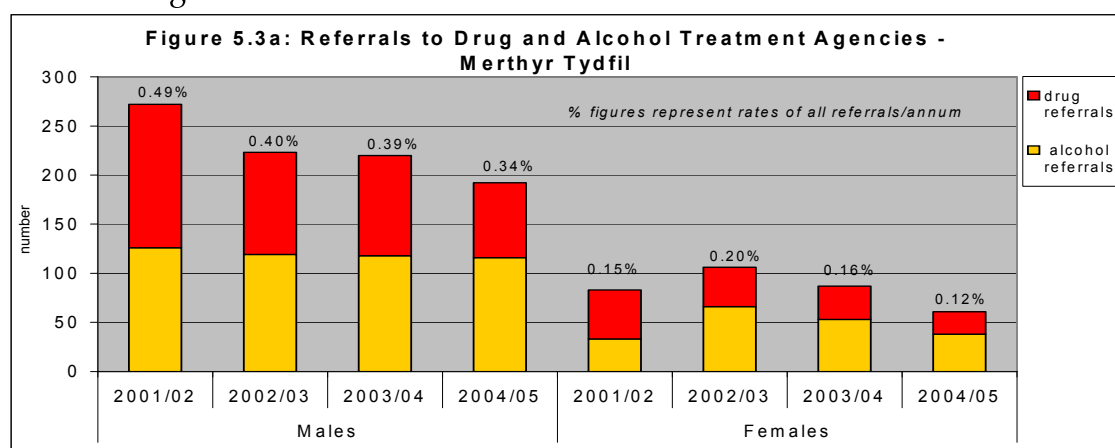
¹⁹

<http://www.wales.gov.uk/keypubstatisticsforwales/content/publication/compedia/2004/dwlas2004/dwlas2004-ch1/dwlas2004-t1-23.xls>

Wales.

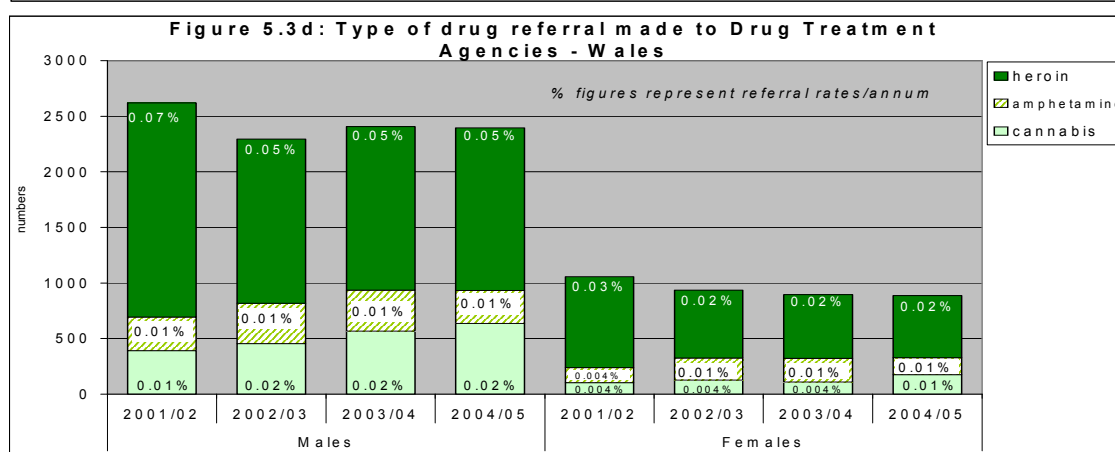
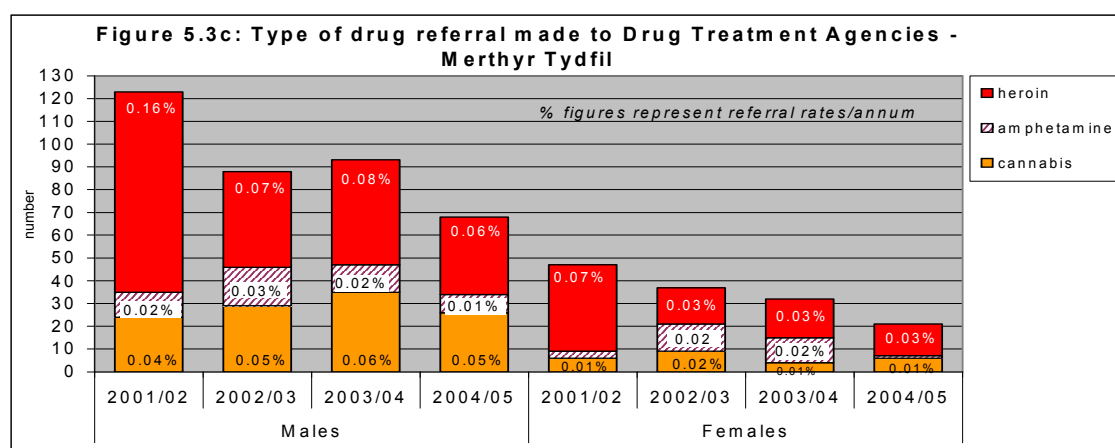
Figure 5.2 highlights the percentage of Lower Super Output Areas (LSOAs) within Merthyr in the 10th, 20th, 30th and 50th percentile of most deprived communities within Wales. Thirty-six percent of LSOAs in Merthyr are to be found in the 10% of most deprived communities in Wales; 55% in the 20% of most deprived communities; 69% in the 30% of most deprived communities; and, 86% in the 50% of most deprived communities. There are no Merthyr LSOAs in the least deprived 25% of communities in Wales.²⁰

The consequences of social exclusion and deprivation are often manifest in crime and drug and alcohol problems. For example, the number of referrals to Drug and Alcohol Treatment Agencies²¹ from Merthyr viz-a-viz Wales is shown in Figures 5.3a and 5.3b.



²⁰ <http://www.wales.gov.uk/keypubstatisticsforwales/wimd/wimd2005-analysis/wimd2005-analysis-pt6-r1.pdf>

²¹ Substance Misuse Report on the Welsh Data Supplied to the Department of Health National Drug Treatment Monitoring System (NDTMS) April 2001 – 31 March 2005. Information Products Unit, Health Solutions Wales, August 2005.

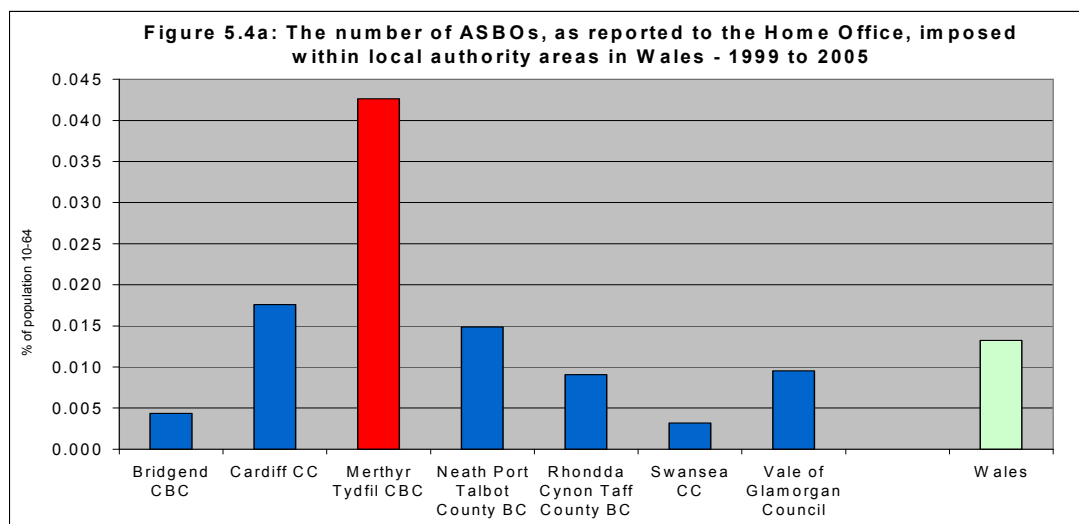


The total number of referrals among males increased from 4,907 to 6,524 and females from 2,062 to 2,748 over the four-year period in Wales – an overall increase of 33%, whereas in Merthyr the numbers fell from 272 to 192 among males and 83 to 61 among females – an overall decline of 29%. Figures 5.3c and 5.3d show that there has been a marked reduction in heroin use in Merthyr compared to Wales, overall. While there are ‘health warnings’ relating to the quality of the data,²² and a decline is to be welcomed, Merthyr still has one of the highest rates of reporting in Wales with a European Age Standardised Rate of over 500 per 100,000 population.²³

²² The Wales figure may be an underestimate because numbers of referrals recorded in South West Wales are low because the local treatment agencies reported most of their referrals to a Dyfed Powys database which was not compatible with the data collected by Health Solutions Wales. In addition, not all treatment agencies supplied information over the whole of the four year period so that any observed trends may be due to differential coverage.

²³ Substance Misuse Report on the Welsh Data Supplied to the Department of Health National Drug Treatment Monitoring System (NDTMS) April 2001 – 31 March 2005. Information Products Unit, Health Solutions Wales, August 2005.

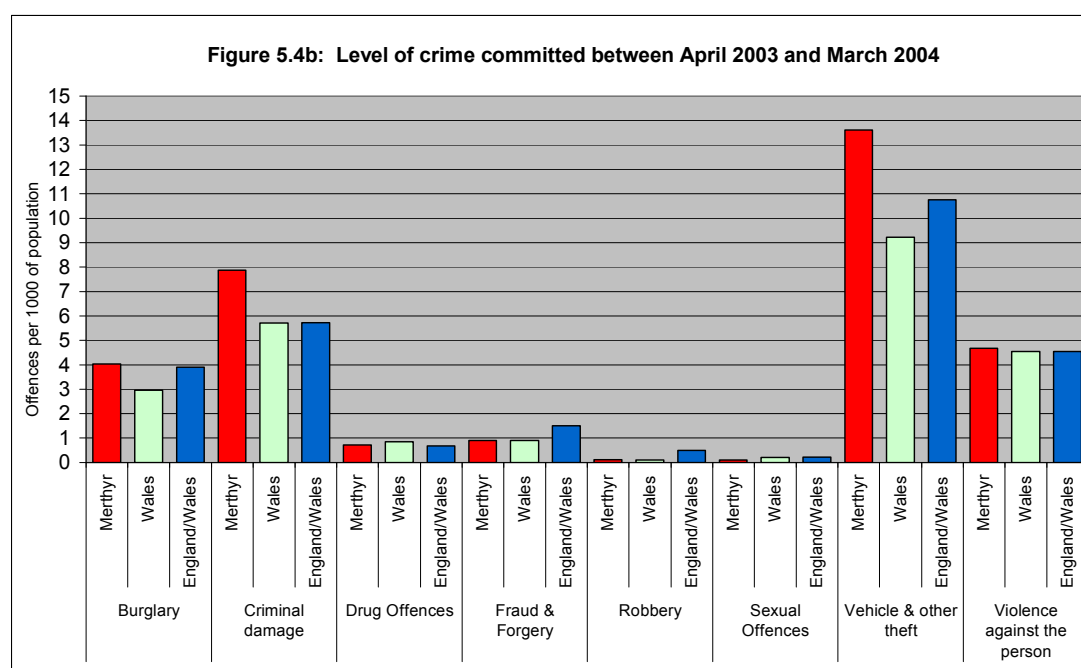
The above average substance misuse found in the Merthyr Tydfil area is reflected in the above average levels of social disorder and crime. Between 1999 and 2005, 270 Anti-Social Behavioural Disorders (ASBOs) were issued in Wales – 43% to 10-17 year olds and 57% to 18+ year olds. The South Wales Police region accounted for 39% of ASBOs issued and Figure 5.4a shows that Merthyr Tydfil has the highest incidence of anti-social behaviour compared to the other local authorities of the region.²⁴



During the period between April 2003 and March 2004, the overall recorded crime rate for Merthyr Tydfil was 32.5 offences per 1000 of the population, while the all-Wales level was significantly lower at 24.7/1000 and the national figure for England and Wales was 28/1000. Figure 5.4b shows the crimes for which Merthyr had above average rates – criminal damage and vehicle and other theft, that is theft of a vehicle, theft from a vehicle, theft from the person, theft from shops and other theft and handling.²⁵ This data also supports earlier evidence of above average substance misuse problems, it has been well documented that a great deal of acquisitive crime is committed to support drug-taking behaviour.

²⁴ <http://www.crimereduction.gov.uk/asbos2.htm>

²⁵ Home Office, Crime Statistics for England and Wales.
<http://www.crimestatistics.org.uk/tool/Default.asp?region=5&force=9&cdrp=287&l1=0&l2=0&l3=0&sub=0&v=24>



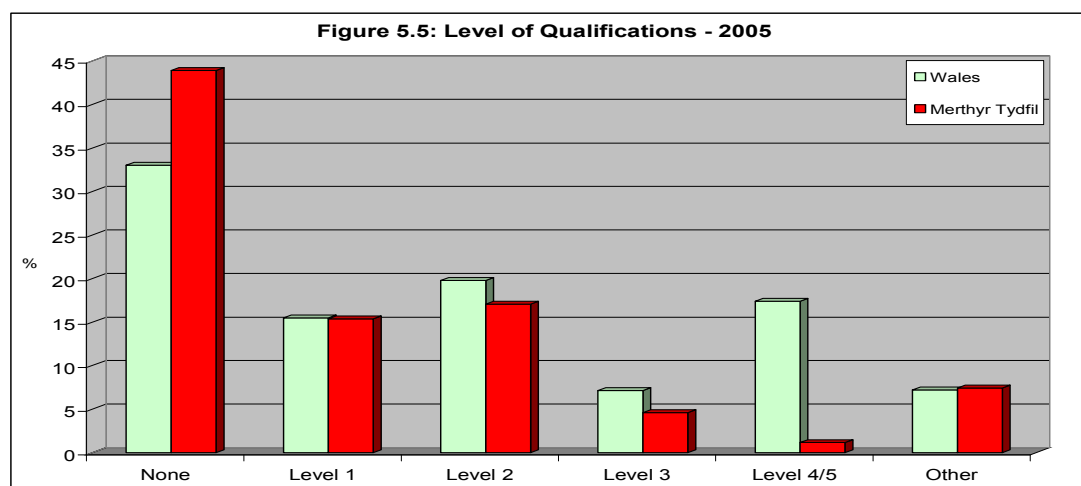
EDUCATIONAL ATTAINMENT

There are clear linkages between levels of deprivation and educational attainment. Analysis of the Welsh Index of Multiple Deprivation data highlights that Merthyr has 28% of LSOAs in the 10% most deprived communities in Wales in relation to education.²⁶ In addition, a report by the Joseph Rowntree Foundation placed Merthyr as the most deprived authority in Wales in relation to performance at GCSE level; the second most deprived area in terms of attainment at Key Stage II; and, the second most deprived in the proportion of 18 year-olds who go on to higher education.²⁷

This data is summarised in Figure 5.5, where it is evident that the level of educational attainment and qualifications achieved is lower than the Welsh average, with 44% of the population in Merthyr having no qualifications compared to 33% of the Welsh population. Within Merthyr there is a wide range in the percentage of people with no qualifications, from 36% in Park to 57% in Gurnos.

²⁶ <http://www.wales.gov.uk/keypubstatisticsforwales/wimd/wimd2005-analysis/wimd2005-analysis-pt6-r1.pdf>

²⁷ Kenway P, Parsons N, Carr J, Palmer G. Monitoring poverty and social exclusion in Wales, 2005. York: Joseph Rowntree Foundation, 2005.



The implications of this data will be considered in the next section of this report but it is important to note that the differential that exists between Merthyr and Wales, and across the borough itself, highlights the need for both careful targeting of interventions, but also for a wider perspective to be utilised in the design and implementation of the interventions in subsequent phases of the WiW initiative.

6. LABOUR MARKET CONTEXT

This section of the report provides an analysis of the nature and structure of the labour market within Merthyr relative to Wales. Figure 6.1 demonstrates that the percentage of the population in employment in Merthyr (28-31%) is consistently lower than in Wales as a whole (36-37%) – with a differential of between 5 and 8 percentage points. The situation is even greater when compared with the GB position, where 40-42% of the population are in employment.

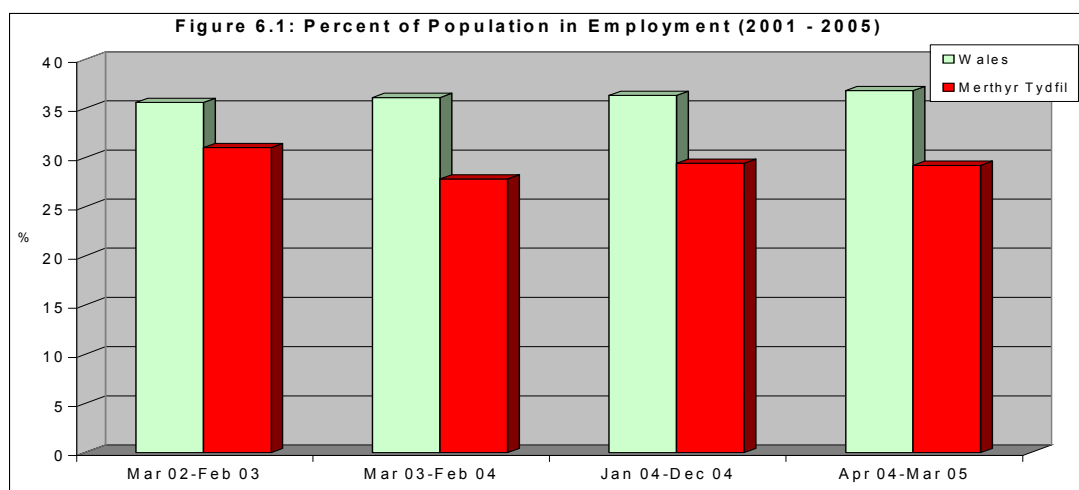
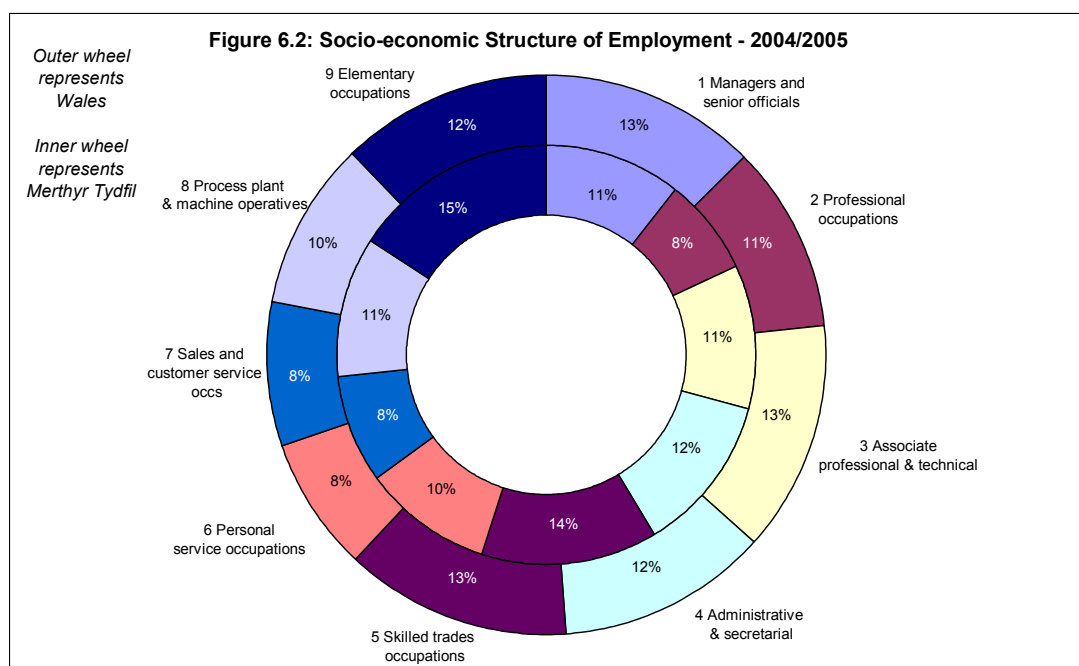
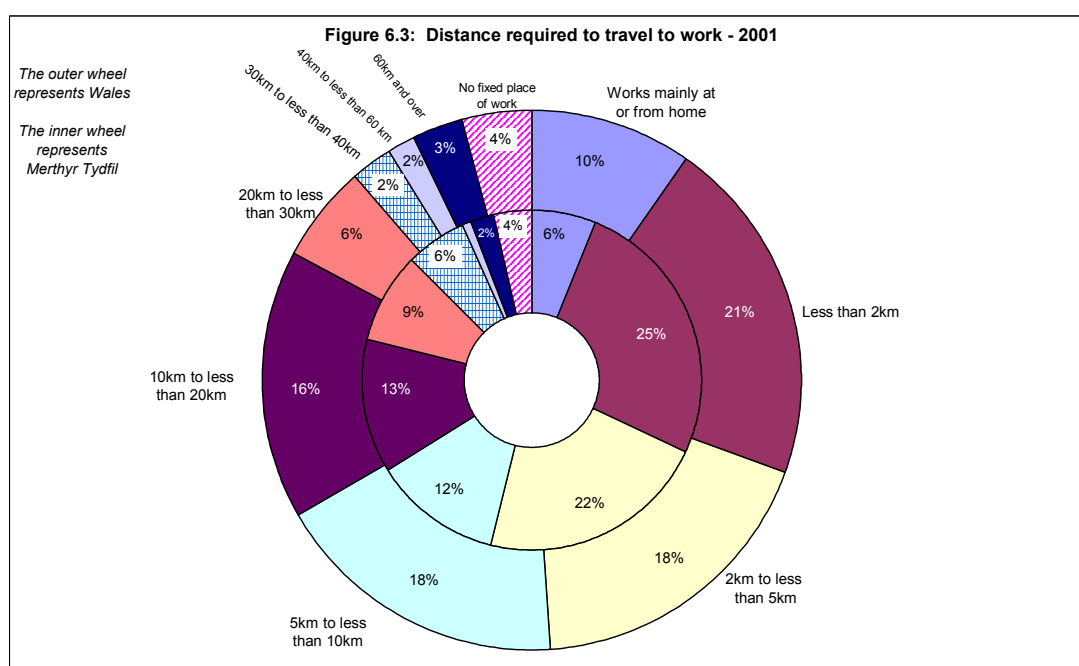


Figure 6.2 highlights the difference in structure of employment between Wales and Merthyr – 19% of employees are in categories 1 (Managers and senior officials) and 2 (Professional occupations) in Merthyr compared to over 24% in Wales, and 28% in GB. In contrast 26% of people in Merthyr are employed in categories 8 (Process plant and machine operatives) and 9 (Elementary occupations) compared with 22% in Wales and 19% in GB.

As with previous indicators, there are also wide variations across Merthyr – for example, 12% of those employed in Merthyr Vale are in categories 1 and 2, while 39% are in categories 8 and 9, whereas in Cyfarthfa there are 22% in categories 1 and 2 and 22% in categories 8 and 9.



With regards to the distances people need to travel to get to their place of work, Figure 6.3 shows that people from Merthyr Tydfil are more likely to travel only a short distance to work, with almost half (47%) travelling less than 5km compared to 39% of people across Wales. However, the percentage travelling over 20km to their place of work is higher in Merthyr (17%) compared to Wales (13%). It also appears that there is less opportunity for people in Merthyr to work from home as only 6% do as opposed to 10% across Wales.



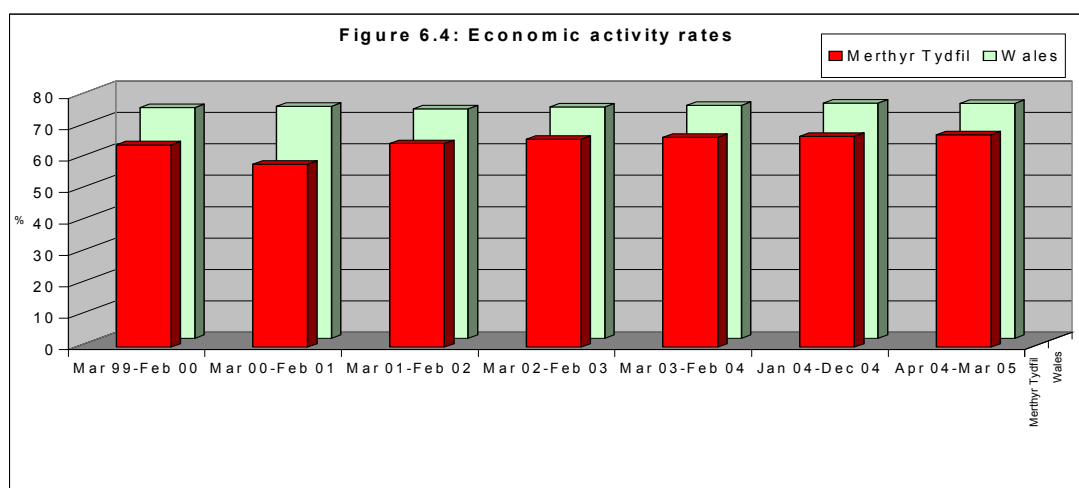
The percentage of those who have never worked is 7.9% in Merthyr compared to 5.6% in Wales. However, there are wide variations across the Borough ranging from 5.8% in Merthyr Town to 13.5% in Gurnos. The implications of worklessness have been usefully documented in a review of the literature,²⁸ with one of the conclusions being that policy measures to encourage employment that were focused on the individual were likely to be undermined by family or communal pressures, while also acknowledging that barriers and constraints to work were complex, multifaceted, deep-rooted and individually varied.

The unemployment rate in Merthyr is consistently higher than the Welsh average, and although not the highest in Wales, the proportion of people who are unemployed or economically inactive and who want work is running in excess of 12% of the working population. The proportion of those economically inactive and who want work who are long-term sick or disabled is running at 40% in Wales, while 25% of this group describe themselves as looking after family or home. Unemployment rates only account for 40% of those who want paid employment, and since unemployment rates have been falling faster than the number of economically inactive people wanting work, the impression has been given of a fall in the number of people wanting work.²⁹ These percentages are particularly relevant for the design and targeting of interventions in subsequent phases of the research, as a number of issues emerge in relation to the economically inactive proportion of those who want to work – for example, what barriers and constraints confront such a group and what remedies can be instigated in order to remedy the problems?

What is particularly noticeable is that the length of time which people have been unemployed in Merthyr relative to Wales. The percentage of unemployed who have been out of work for more than 15 years in Merthyr is 34%, and the percentage who have been out of work for more than 10 years is 54% compared to 30% and 48% respectively for Wales. These percentages highlight the need for concerted action but involving all agencies and adopting a whole systems approach in targeting and implementing relevant schemes.

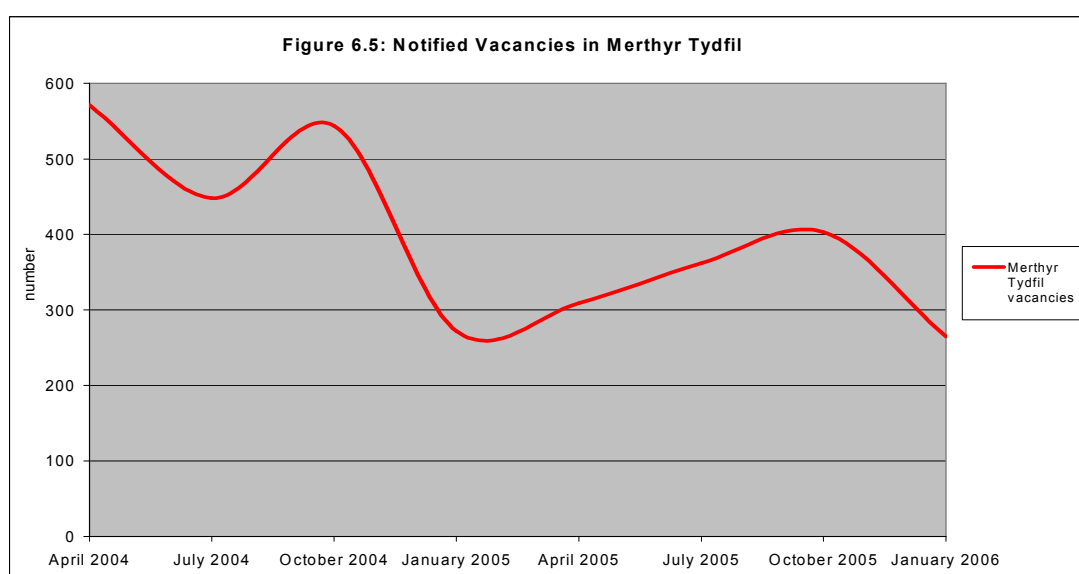
²⁸ Ritchie H, Casebourne J, Rick J. Understanding workless people and communities: A literature review. Department of Work and Pensions Research Report No. 255. London: Department of Work and Pensions, 2005.

²⁹ Kenway P, Parsons N, Carr J, Palmer G. Monitoring poverty and social exclusion in Wales, 2005. York: Joseph Rowntree Foundation, 2005.



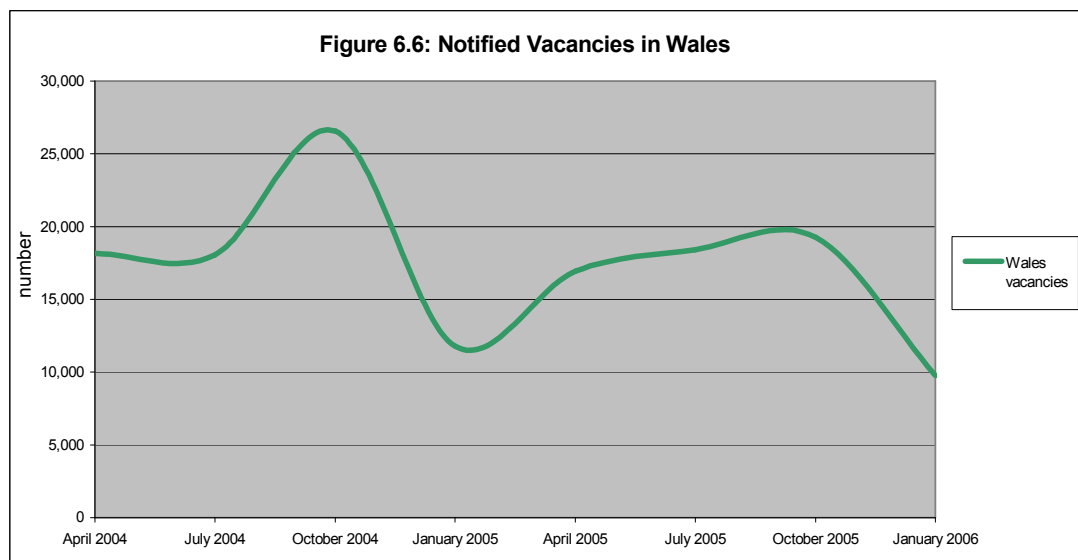
While there have been pressures on to increase economic activity rates across Wales, the rates in Merthyr continue to lag behind the Welsh average and those achieved across GB as a whole, as shown in Fig 6.4, although there are signs that the differentials are closing. Currently, the percentage economically inactive in Merthyr is 32%, compared with 25% in Wales and 22% in GB.

Therefore, taking all of the above indicators into account, it is not surprising that 36% of LSOAs in Merthyr are in the 10% most deprived communities in relation to employment in Wales.³⁰



³⁰ <http://www.wales.gov.uk/keypubstatisticsforwales/wimd/wimd2005-analysis/wimd2005-analysis-pt6-r1.pdf> - based on the number of claimants of unemployment related benefits, claimants of incapacity benefit, claimants of severe disablement allowance and participants on New Deal for young people and intensity activity period

Over the past few months there has been a decrease in the number of notified vacancies in Merthyr and surrounding areas, as shown in Figure 6.5 above. However, a similar trend is observed in the surrounding areas and at the all-Wales level, as shown in Figure 6.6.

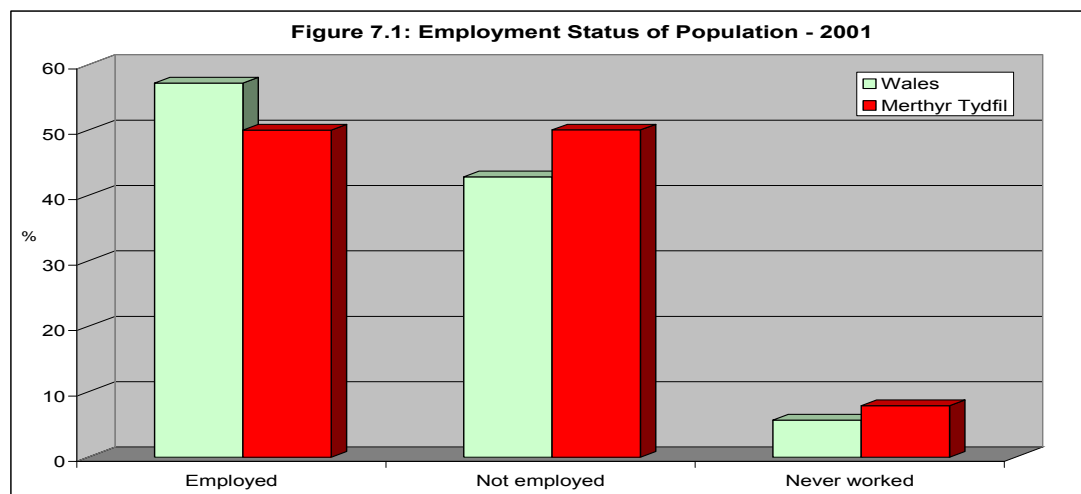


There would therefore appear not to be a great demand for employment within the region and it is necessary to carefully consider the approaches and schemes that can result in improvements in the economic activity rate bearing in mind that employment deprivation currently witnessed needs to be addressed.

7. ECONOMIC CONTEXT

This section considers relative income levels and the proportion of the population who are reliant on state benefits. Analysis of the Welsh Index of Multiple Deprivation data highlights that Merthyr has 19% of LSOAs in the 10% most deprived communities in Wales in relation to income,³¹ while the Joseph Rowntree report has ranked Merthyr as the most deprived community in Wales in relation to both child poverty and working-age poverty.³²

Figure 7.1 portrays the current employment status of the population in Merthyr and Wales. The percentage of the working age population who have never worked in Merthyr is nearly 8% compared to under 6% in Wales, while there are fewer than 50% of the working age population in employment in Merthyr compared to over 57% in Wales.

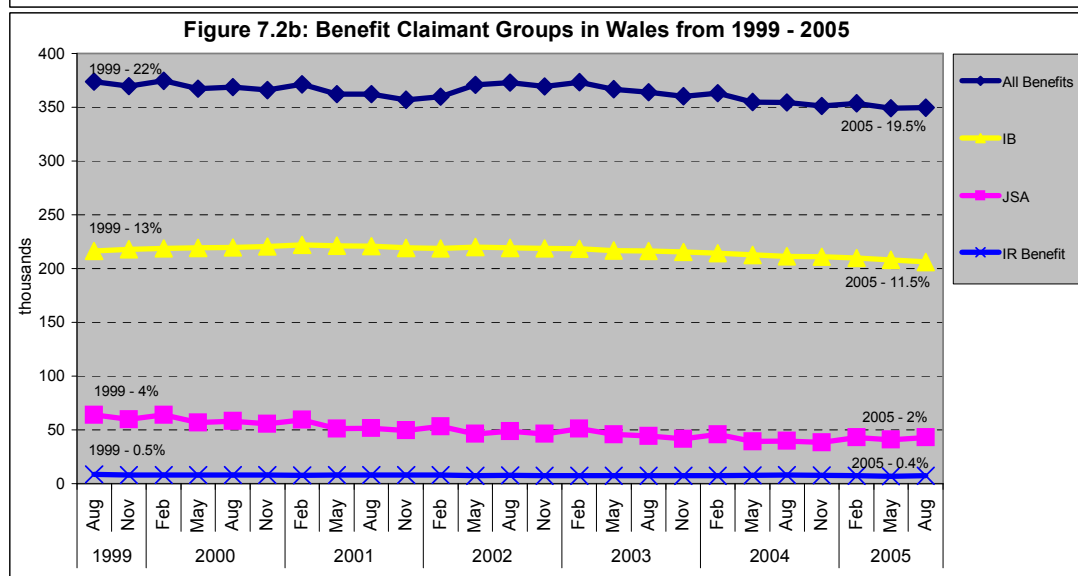
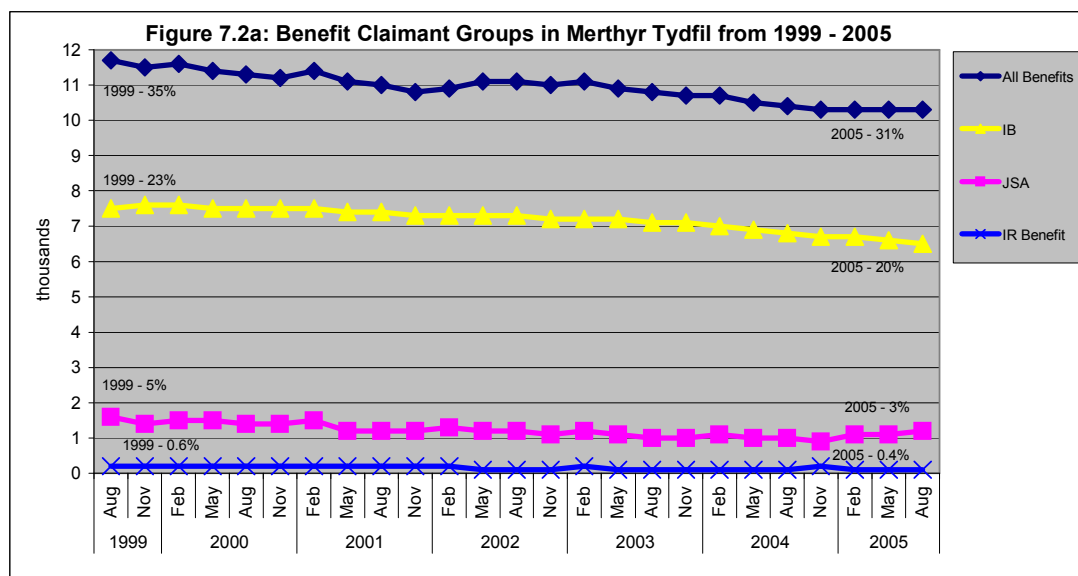


The situation in some communities within Merthyr is even starker. In Gurnos, for example, 37% of the population are in employment while over 13% of the population have never worked.

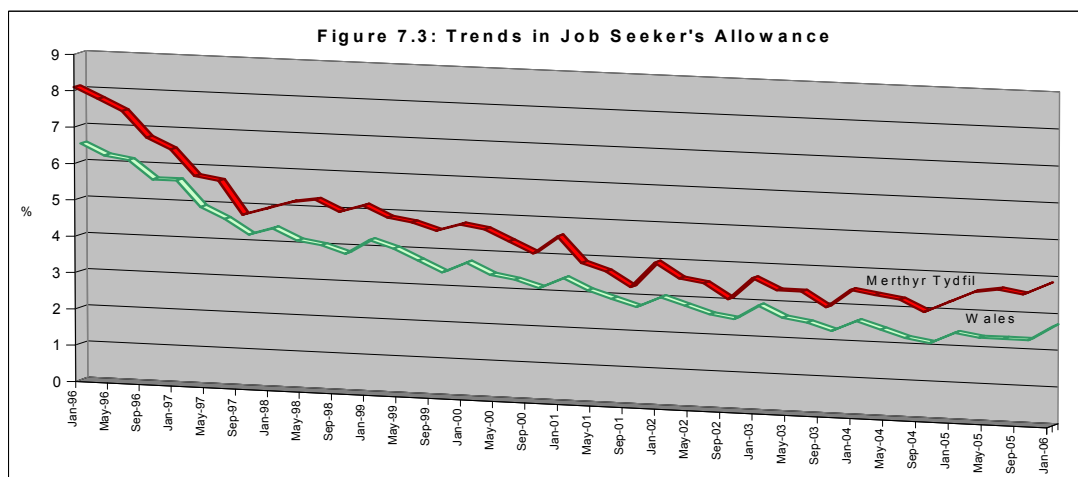
The numbers on benefits (IB, JSA and income related (IR) benefits) from 1999 to 2005 Merthyr Tydfil and Wales are shown in Figures 7.2a and 7.2b.

³¹ <http://www.wales.gov.uk/keypubstatisticsforwales/wimd/wimd2005-analysis/wimd2005-analysis-pt6-r1.pdf>

³² Kenway P, Parsons N, Carr J, Palmer G. Monitoring poverty and social exclusion in Wales, 2005. York: Joseph Rowntree Foundation, 2005.



It can be seen that, despite a decline in numbers and percentages across the piste, the differentials between Merthyr and all-Wales remains fairly constant,



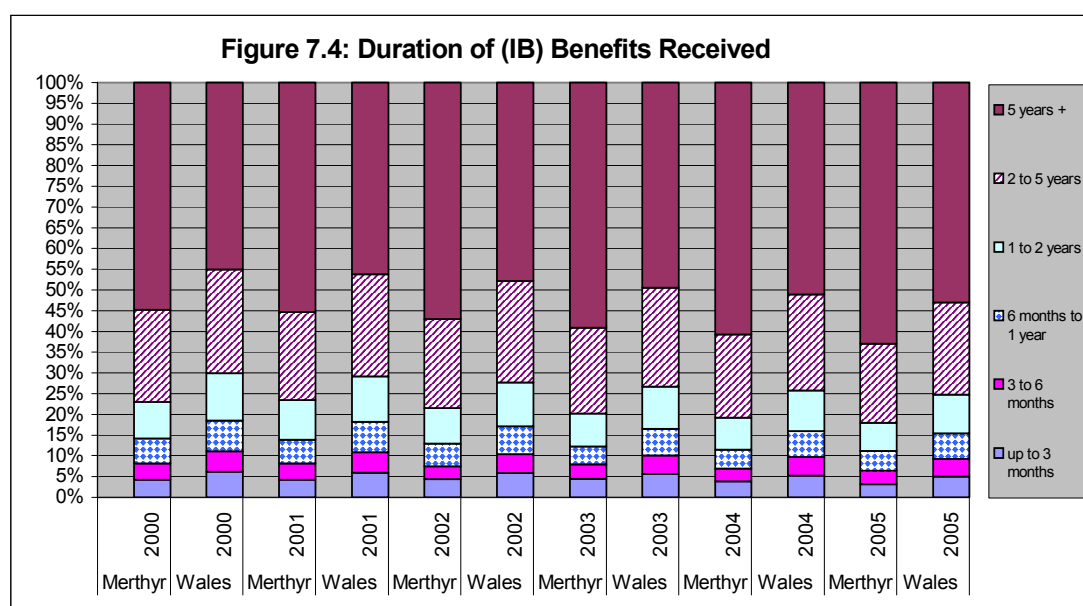
as evidenced in the decline in those on Job Seekers Allowance, as shown in Figure 7.3.

The proportion of IB claimants actually in receipt of benefit is also of interest. 'Claimants' include people in receipt of benefit and also those who are not entitled (but keep submitting medical evidence) or who have had their benefit extinguished. Those who fail the contributions conditions receive a National Insurance Credit (denoted "Credits Only").

TABLE 7.1: Percentage of claimants receiving IB

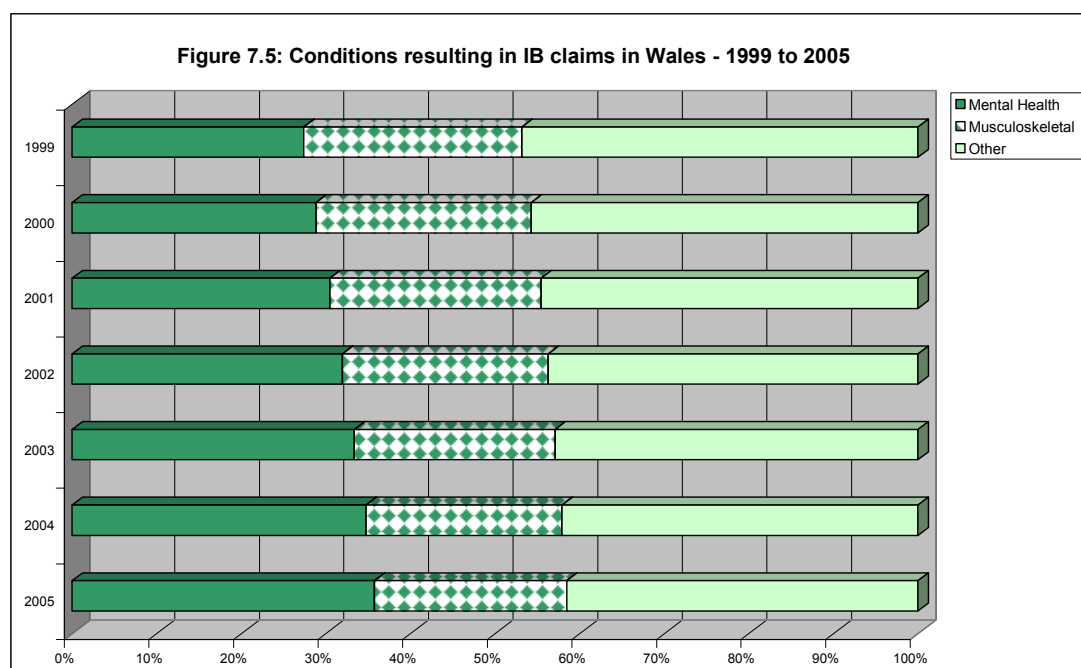
		2000	2001	2002	2003	2004	2005
		%	%	%	%	%	%
In receipt of IB	Wales	74	73	72	71	70	69
In receipt of IB	Merthyr	79	77	76	75	74	74
Not in receipt	Wales	26	27	2	29	30	31
Not in receipt	Merthyr	21	23	24	25	26	26

There is a consistently higher percentage of IB claimants in Merthyr who receive IB than Wales – as shown in Table 7.1 – which goes some way to validating the data relating to limiting long-standing illness, to be discussed in Section 8. In addition, there is a clear difference between Merthyr and Wales in relation to the duration of time which people have been receiving benefits as shown in Figure 7.4.



There is no specific data at the Merthyr level relating IB beneficiaries to specific diseases and therefore the prevalence of conditions (ICD-10 codes)

at the Welsh level has been used in relation to the number of IB beneficiaries in Merthyr. The total number of beneficiaries in Wales has fallen from nearly 150,000 in 2000 to 133,000 in 2005, but the number of beneficiaries due to mental and behavioural disorders has risen from 35,200 (24%) to over 40,000 (30%). On the other hand there has been a decline in the number of beneficiaries suffering from musculoskeletal problems from 41,000 (28%) to 34,000 (26%), as shown in Figure 7.5. The figures are slightly different when claimants are considered, with mental and behavioural disorders accounting for 36% of claims in 2005 compared with 29% in 2000 and musculoskeletal problems falling from 25% in 2000 to 23% of claims in 2005.

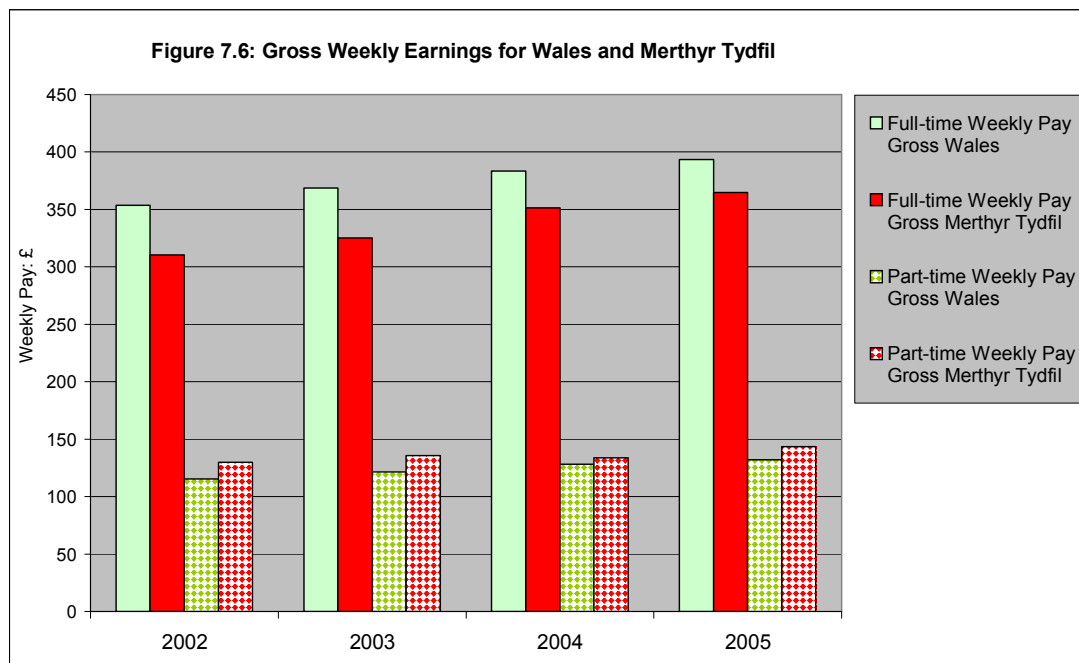


There is a close correspondence between numbers on benefits and income levels within communities. For example, one measure of low income is the proportion of the population in each electoral ward receiving Incapacity Benefit, Severe Disablement Allowance or any of the main means-tested benefits, namely Income Support, Jobseeker's Allowance or the Pension Credit Guarantee. Two-thirds of the wards in Merthyr Tydfil are ones where the proportion of people receiving state benefits exceeds 25 per cent – the highest level of state dependence.³³

In addition, gross weekly earnings are lower in Merthyr than Wales – although there is a slight difference in part-time earnings – as shown in Figure 7.6 and there may be signs that the differential is closing as annual

³³ Kenway P, Parsons N, Carr J, Palmer G. Monitoring poverty and social exclusion in Wales, 2005. York: Joseph Rowntree Foundation, 2005.

gross earnings in Merthyr have increased from 85% of the Welsh figure in 2002 to nearly 89% in 2005.



The Rowntree report ³⁴ stated that around a third of the 50,000 children living in income poverty in Wales live in the six Valley local authority areas of Neath Port Talbot, Merthyr Tydfil, Blaenau Gwent, Caerphilly, Rhondda Cynon Taff and Torfaen. In these areas the rate of child poverty – that is, the proportion of children who are living in income poverty – is in excess of 30 per cent, with Merthyr ranked as the most deprived area in Wales.

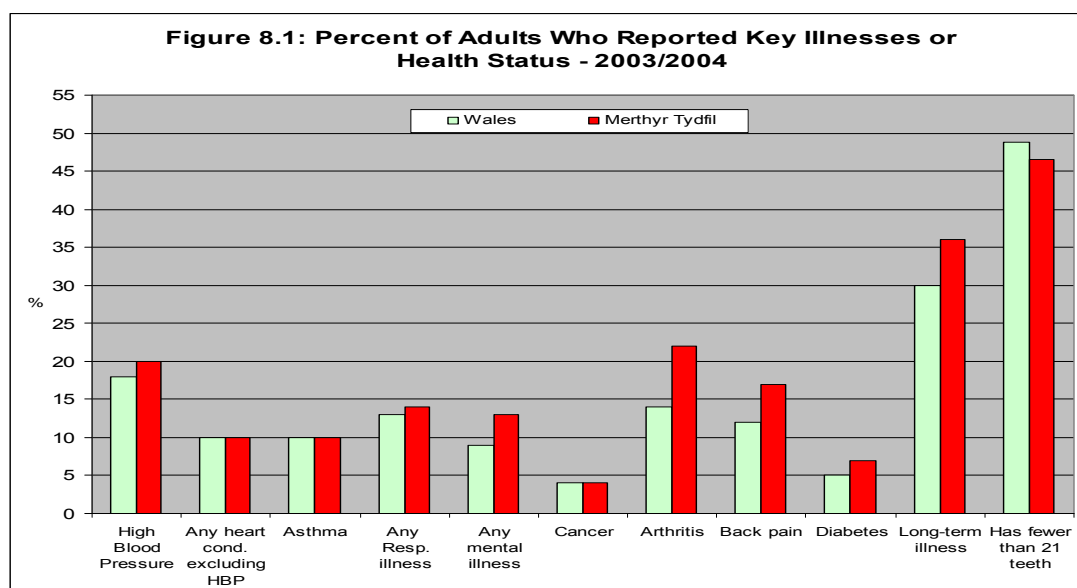
The evidence to date highlights the extreme deprivation that exists within Merthyr in relation to employment and income. The next section focuses on the health status of the community, where, according to the Welsh Index of Multiple Deprivation, 50% of the LSOAs in Merthyr were in the 10% most deprived areas in relation to health in Wales.³⁵

³⁴ Op cit

³⁵ <http://www.wales.gov.uk/keypubstatisticsforwales/wimd/wimd2005-analysis/wimd2005-analysis-pt6-r1.pdf>

8. HEALTH STATUS CONTEXT

Previous sections have reported on levels of overall deprivation and specific components as reflected in the Welsh Index of Multiple Deprivation. In relation to health 50% of LSOAs in Merthyr are to be found in the 10% of most deprived communities in Wales in relation to health status.³⁶ In addition, Merthyr has consistently higher than average rate of people reporting illness and health problems as shown in Figure 8.1.

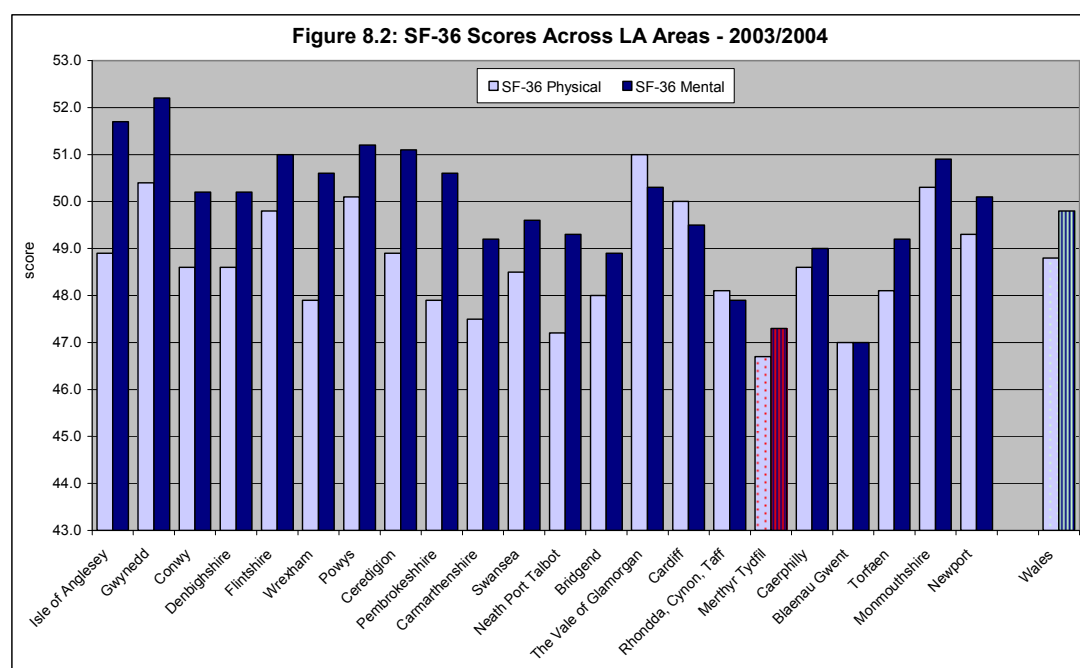


This is also reflected in the SF-36 scores collected during the Welsh Health Survey, 2003/04,³⁷ where Merthyr had the lowest Physical Health score for any area in Wales and the second lowest Mental Health score.

³⁶ <http://www.wales.gov.uk/keypubstatisticsforwales/wimd/wimd2005-analysis/wimd2005-analysis-pt6-r1.pdf>

³⁷

<http://www.wales.gov.uk/keypubstatisticsforwales/content/publication.health/2005/hs2003-04/hs2003-04.htm>



The link between poor health and deprivation is well established and poor health among children is a particularly clear representation of that link. It is also well established that poor health in childhood is a predicator of poor health in adulthood, and the multiple disadvantage that it entails. Merthyr has one of the highest percentages of low birth-weight babies in Wales,³⁸ while, along with Blaenau Gwent, it has the highest rate of teenage pregnancies in Wales – as shown in Figure 8.3. The 2000-2002 conception rates for the under 16s and 18s in Merthyr Tydfil have remained significantly higher than that of Wales, with conception rates in Merthyr at 14% and 67.2% compared to 9% and 48.7% respectively in Wales. However, although there was a relative decrease in the under 16s conception rates for Merthyr Tydfil (15.6 - 14%), overall conception rates of under 18s for both Wales (46.5 - 48.7%) and Merthyr Tydfil (65.2 – 67.2%) have increased by nearly 2%.³⁹

The Rowntree Report⁴⁰ has illustrated the full complexity of the issues by reference to teenage pregnancies. First, it points to the disadvantage for the

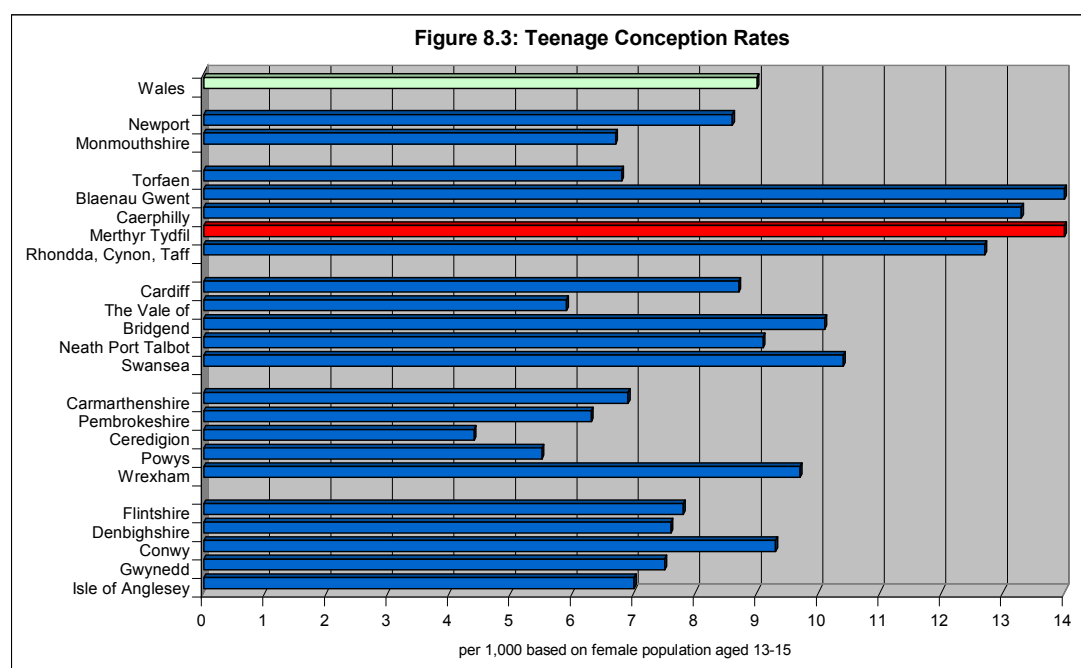
³⁸ Kenway P, Parsons N, Carr J, Palmer G. Monitoring poverty and social exclusion in Wales, 2005. York: Joseph Rowntree Foundation, 2005.

³⁹

<http://www.wales.gov.uk/keypubstatisticsforwales/content/publication/compendia/2004/dwlas2004/dwlas2004-ch2/dwlas2004-ch2.htm>

⁴⁰ Op. cit.

child of having a teenage mother. Such a child is more likely to be of a low birth-weight, which in turn means they are more likely to die within the first few weeks of life, or develop certain chronic diseases, such as heart disease or diabetes, in adulthood. The child is also more likely to perform poorly at school, to have educational and emotional problems, and suffer illness, accident or injury. If she is a girl, she is also more likely to become a teenage mother herself. Secondly, it is a marker of the mother's present disadvantage – and the disadvantage that the child is therefore born into, with high risks of being in poverty, being in care, and low educational attainment, which itself is a high risk factor for poor employment prospects, whether unemployment or low-paid employment. Thirdly, it relates to the future prospects of the mother and can be an expression of low aspirations and lack of opportunity – the choice to have a baby may be considered a good option in the circumstances.



Due to the relatively small number of events it has not been possible to determine the infant mortality rate but it is worth noting that the Rowntree Report indicated that over the years 1998-2001, the infant mortality rate in the most deprived fifth of areas in Wales was 60 per cent higher than in the most affluent fifth of areas.⁴¹

Disease prevalence has already been referred to briefly in relation to Figure 8.1 but it is worth highlighting the conditions where prevalence rates⁴² are

⁴¹ Op cit

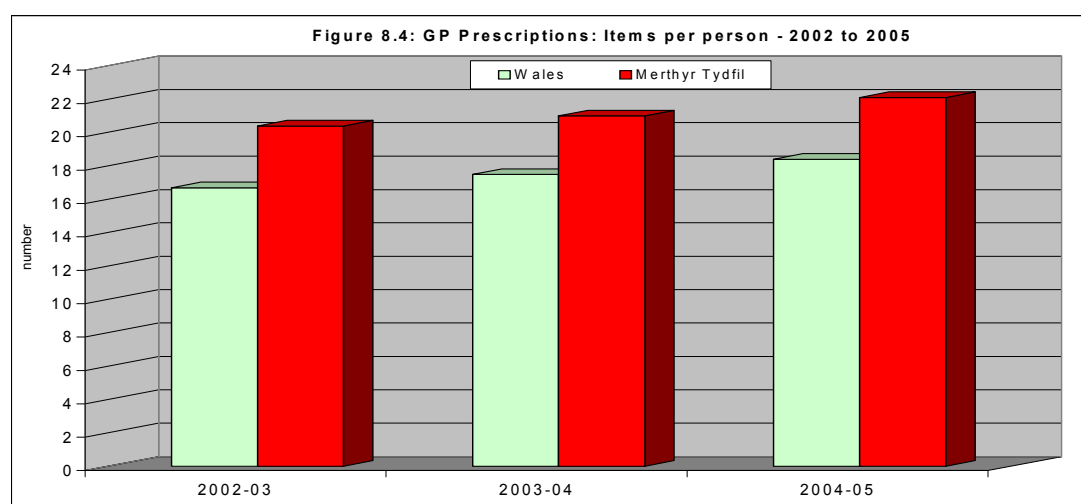
⁴² Self-reported as having received treatment - Welsh Health Survey, 2003/04

similar or higher than the Welsh average – expressed as a factor relative to 100 persons in Wales:

- Hypertension – 111
- CHD (other than Hypertension) - 100
- Cancer -100
- Respiratory - 108
- Mental health – 144
- Arthritis – 157
- Back Pain – 142
- Diabetes – 140
- Long-term illness - 129
- Dental (fewer than 21 teeth) - 120

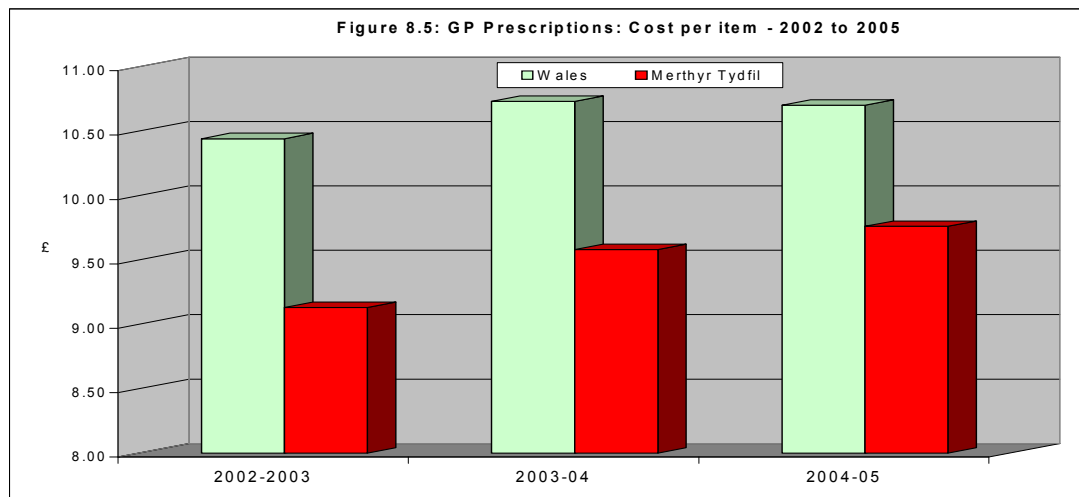
Moreover, when possible differences in disease prevalence between genders were explored, the extent of diabetes and long-term illnesses for men and women were similar. However, females had higher prevalence of arthritis, back pain, poorer mental health, and fewer teeth than males, while a higher percentage of males were reported as having CHD than females.

The relatively high levels of illness and disease are clearly reflected in the rate of prescribing in Merthyr relative to the rest of Wales, as shown in Figure 8.4. What is also significant is that the Welsh prescribing rate per head of population is significantly higher than in England and is a key policy driver for WAG.

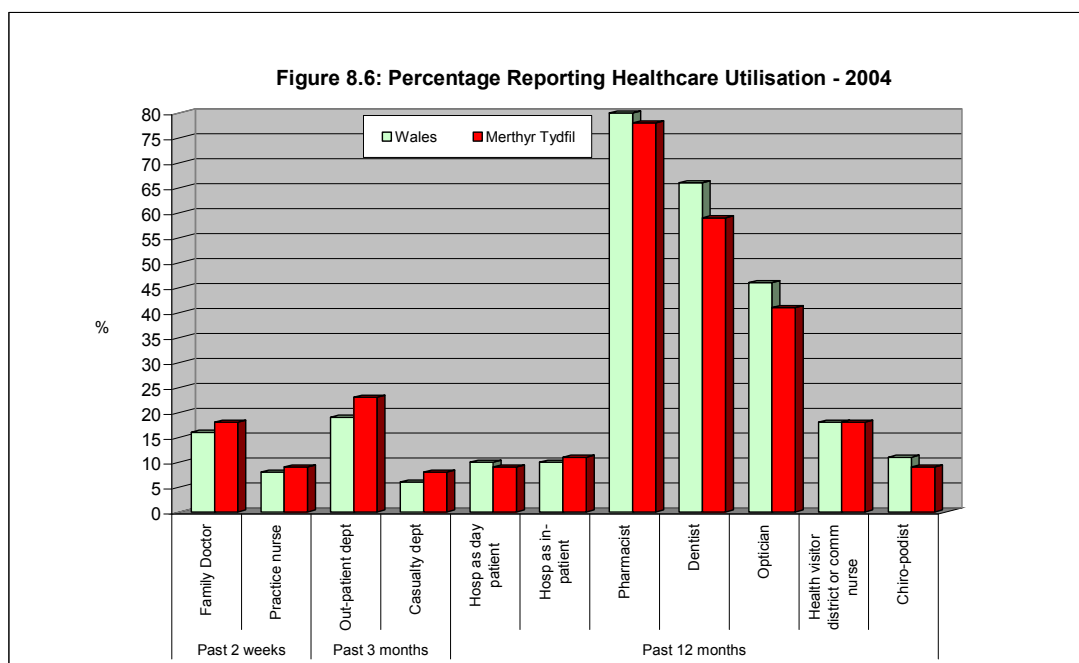


There were in excess of 1.2 million prescriptions provided in Merthyr during 2004-05 at a cost of £12 million – the highest rate per head of any LHB in Wales.

However, it is interesting to observe that the cost per item prescribed in Merthyr LHB is one of the lowest in Wales and, as shown in Figure 8.5, is significantly lower than the Welsh average, and some 20% lower than the highest cost LHB.



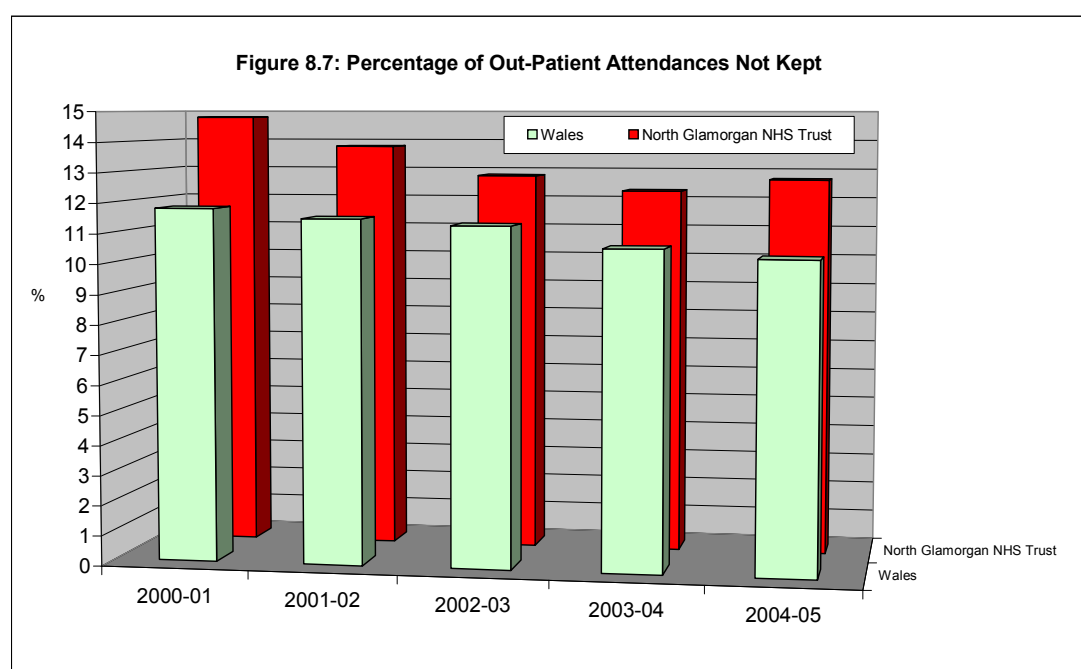
In addition, the level of utilisation of healthcare resources and facilities is evidenced in Figure 8.6, where the comparison between utilisation rates in Merthyr and Wales highlight the pressures placed on primary care in Merthyr.



It is the case that people in Merthyr are more likely to visit their GP or practice nurse, are more likely to have had a hospital out-patient appointment or attended A+E or been admitted as an in-patient, while they

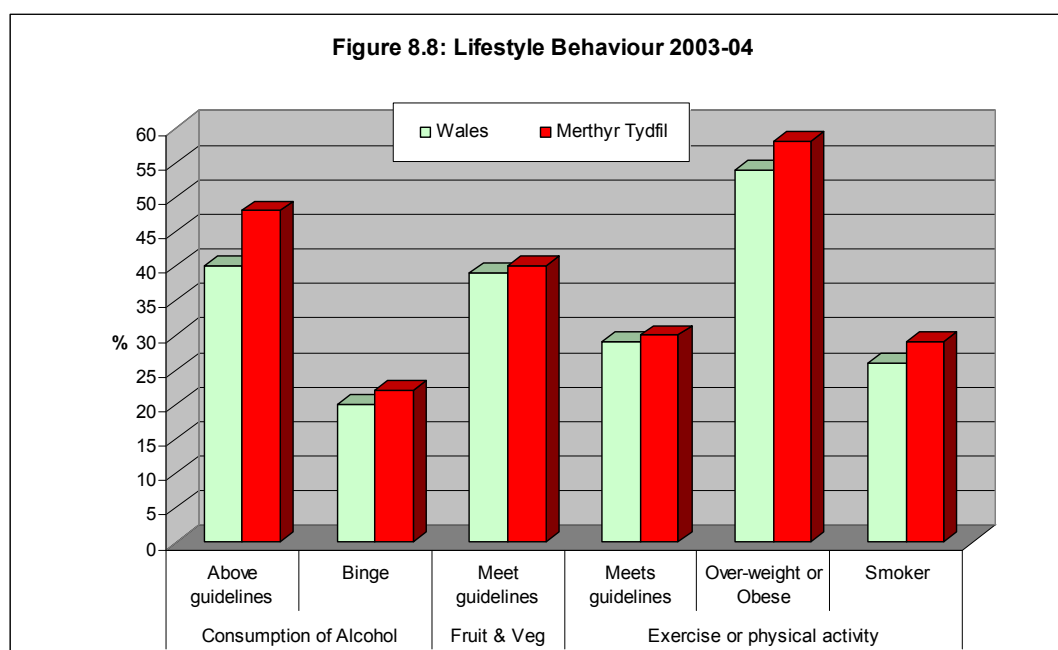
are less likely to have been a hospital day patient, or made contact with a pharmacist, dentist, optician or chiropodist relative to the rest of Wales.

The issue of taking responsibility for health and health problems is also one which will need to form part of subsequent phases of the WiW initiative. Figure 8.7, demonstrates that there are a greater percentage of out-patient appointments not kept at North Glamorgan NHS Trust than in Wales, with particular problem areas being Palliative Medicine, Paediatrics, ENT, Dermatology, Obstetrics, Gynaecology and Psychotherapy.



While there is a downward trend in the percentage of all out-patient appointments not kept, further analysis highlights that it is follow-up attendances that are the main cause, since the percentage of initial attendances not kept fell from nearly 13% in 2000-01 to just over 8% in 2004-05. However, this is not the trend in psychotherapy, where the percentage of non-attenders increased from 27% in 2000-01 to 50% in 2004-05. In mental illness, while a fall was observed, the percentage is still relatively high compared with other specialties – with nearly 17% of referrals not attending for their initial appointment in 2004-05 (compared with 25% in 2000-01).

In addition, the lifestyle of Merthyr residents does not paint a rosy picture either. As can be seen in Figure 8.8, the indicators point to a negative impact on health status – with higher rates than the Welsh average in terms of smoking and alcohol consumption above the recommended guidelines and lower rates of exercise patterns and consumption of fresh fruit and vegetables.



However, there may be encouraging signs in relation to exercise. The previous Welsh Health Survey (1998) reported that over 20% of adults in Merthyr did no exercise compared with 13.5% in Wales. The question in the recent Welsh Health Survey was different – meeting approved guidelines - but the percentage in Merthyr (30%) more or less corresponds with the Welsh figure (29%).

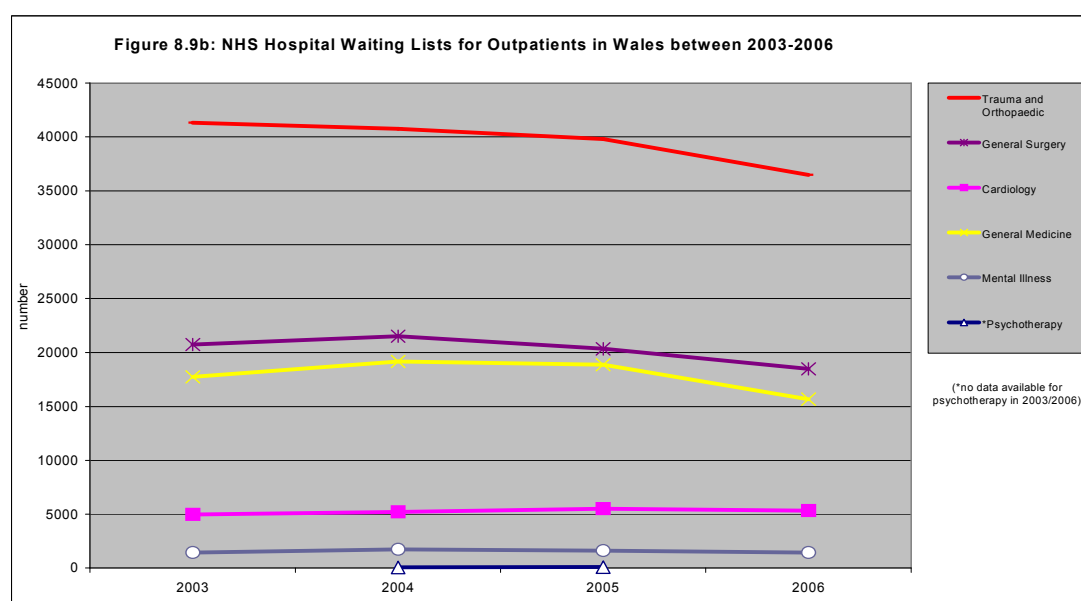
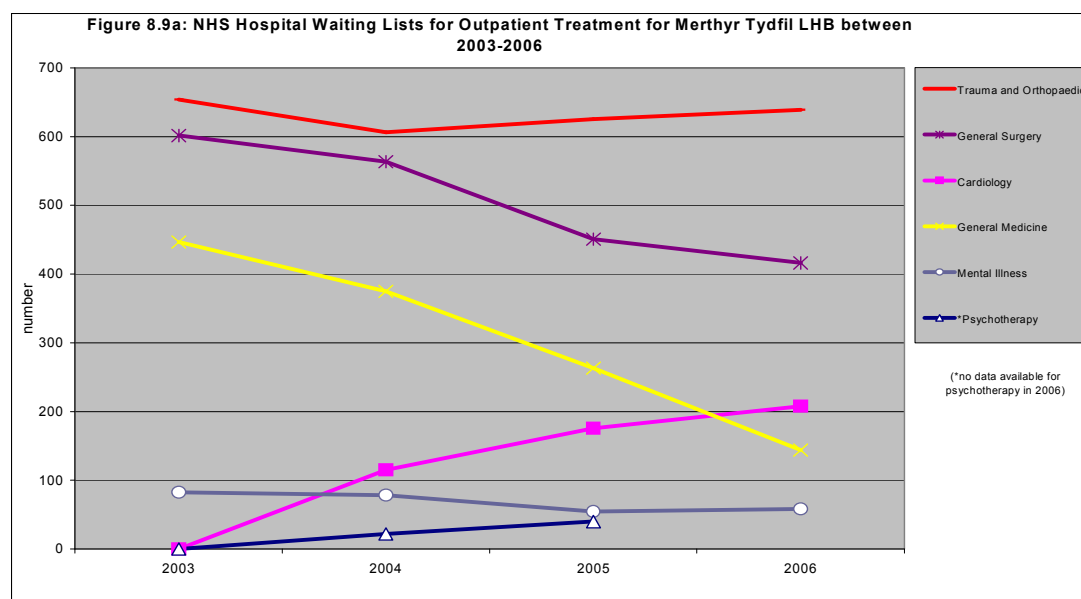
Waiting lists

Data relating to waiting lists in the Merthyr LHB area show that there are more people waiting for an initial out-patient appointment than the Welsh average, but fewer people than average waiting for in-patient admission and day-case treatment.

Merthyr residents waiting for outpatient appointments have experienced a rise in waiting times for treatment for trauma and orthopaedics, cardiology, psychotherapy while across Wales such waiting lists are steady or declining – as shown in Figures 8.9a and 8.9b.

There are possible explanations for some of these trends. For example in 2003, Cardiology patients waiting for outpatient attendances were recorded under General Medicine. The waiting lists for Trauma and Orthopaedics is complicated slightly by the 'transfer' of patients referred with back pain directly to physiotherapy. This did not occur for a period in North Glamorgan NHS Trust, but this has now been re-established, although 30%

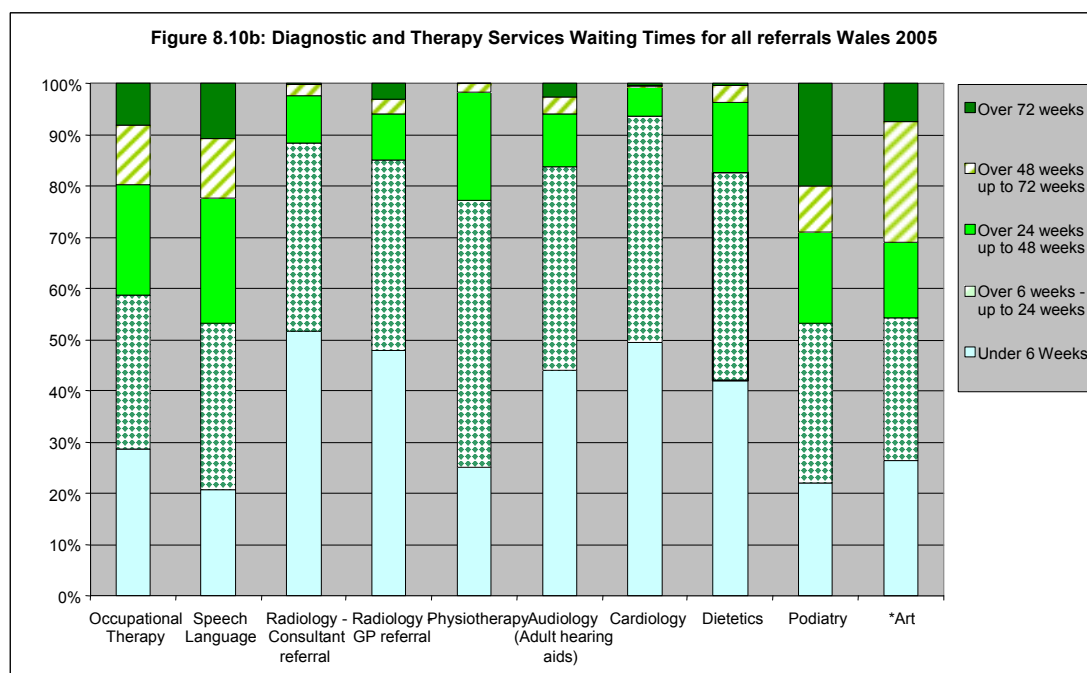
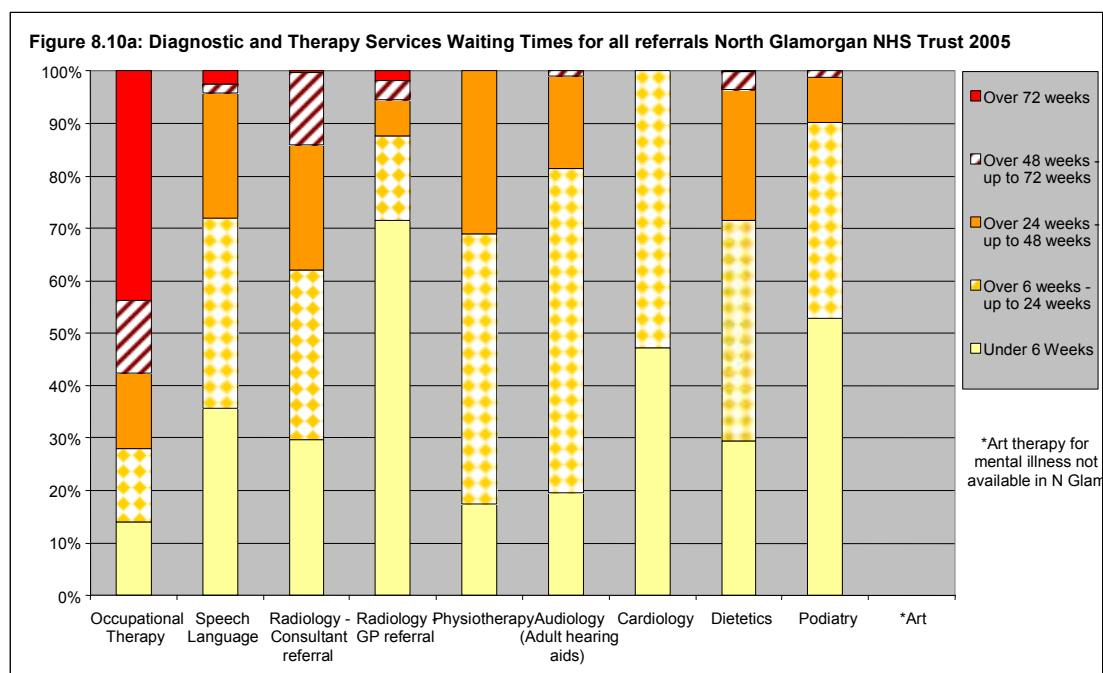
of physiotherapy referrals have a wait of over 24 weeks in North Glamorgan compared to just over 20% in Wales.



The trend in psychotherapy referrals should be treated with some caution as waiting lists in this area are not normally reported, but as highlighted earlier there are some concerns with regard to the percentage of referrals not attending for their initial appointment in this therapeutic area and mental illness in general.

For Merthyr residents waiting for treatment under North Glamorgan NHS Trust, Figures 10a and 10b shows that they have a longer than average waiting period for access to radiology (consultant referral), dietetics, physiotherapy and occupational therapy (OT). In the case of OT, 145

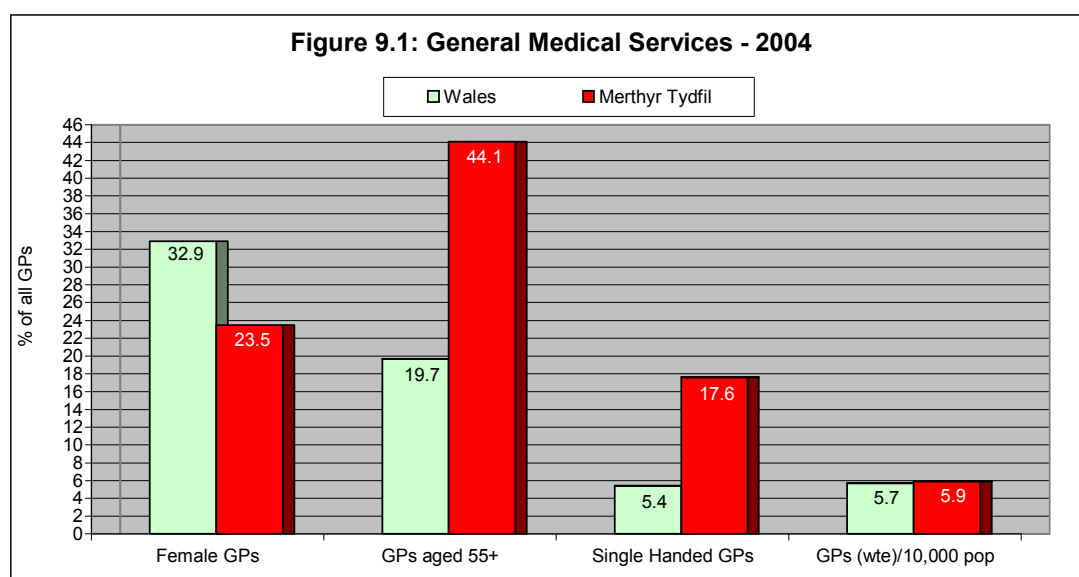
residents were on the waiting list. All adults were seen within 12 weeks. However, 44% of all referrals had to wait over 72 weeks and these were paediatric referrals. There is a similar pattern across Wales with the majority of adults waiting no longer than 24 weeks for OT but for those having to wait over 72 weeks, the majority are children. Overall, children make up 7% of the 8% of total referrals waiting over 72 weeks across Wales. An examination of paediatric data reveals that across Wales 15% of all child referrals had to wait over 72 weeks compared to 50% in N Glamorgan.



9. COMMUNITY CONTEXT

North Glamorgan NHS Trust serves the residents of Merthyr Tydfil and some surrounding valley communities. There are four hospitals within the Trust – Aberdare, Mountain Ash, St Tydfil's and Prince Charles, which is the district general hospital and has a capacity of over 400 beds and 24,000 deaths and discharges every year.

In relation to primary care, the number of GP (whole-time equivalents) per 10,000 population is similar to Wales – 5.9/10,000 population in Merthyr and 5.7/10,000 population in Wales. However, as Figure 9.1 demonstrates, there are some differentials which are worthy of note.



The relative lack of female GPs, the proportion of GPs aged 55 and over and the percentage of single-handed GPs highlight some of the problems facing primary care services in Merthyr Tydfil and need to be factored into the design considerations for interventions and programmes during subsequent phases of the WiW initiative.

In terms of community care facilities there are 9 residential and other homes provided by the Local Authority and 9 provided by other agencies, while in terms of leisure facilities there are 10 leisure and community centres, 3 swimming pools, a Sports Development Centre and a Climbing Centre.

10. CONCLUSIONS and RECOMMENDATIONS

This report has clearly demonstrated that there are a wide range of serious problems in Merthyr in terms of unemployment, low income, poverty in children and adults, poor health status, and a high incidence of risk factors for poor health including smoking, alcohol consumption and poor diet. Remedies for these problems requires not only a major investment and cultural change in the region, which probably necessitate a long-term perspective, but also a focussed stepped strategy for implementing change

Tackling social deprivation is recognised as a high priority by government, and a high level of deprivation has certainly been identified in the Merthyr Tydfil area. In the short to medium term, we might adopt an individual-centred approach, focusing particularly on those individuals in the most deprived situations. This would have the additional benefit of contributing to the more gradual overall improvement of the region in terms of reducing deprivation and improving health. There are serious consequences of the deprivation in this region, including child poverty and reduced life-expectancy, and concerted efforts need to be made to tackle these problems.

First and foremost, social deprivation is a consequence of unemployment, and is manifest in the health inequalities we have documented. Although we anticipate that we will establish a number of aspects of the health-work interface common throughout the region, in adopting a local community perspective we also expect to find specific local factors which might serve as targets for intervention.. We expect to find cultural beliefs and attitudes in communities with high levels of deprivation and economic inactivity that contribute to lack of perceived ability or motivation to work. However, in the light of this report, we believe it is essential that sufficient weight is given to the real practical barriers to work at a community level, particularly the demonstrable poor health status in comparison with the rest of Wales and the U.K. Interventions that focus on health at work in this community without taking into consideration its socio-economic context are unlikely to succeed.

The impact of work on health needs to be investigated further in terms of the financial, social, and psychological benefits of work in itself. The harmful effects of worklessness have been well documented, but the evidence for a beneficial effect of work on health has not been well established. Work can vary widely in its nature and quality, and situations where work is particularly beneficial, or indeed harmful to well-being, need to be identified in Merthyr. The WAG/NHS strategic plans indicate that the home will become a setting for health improvement, and the potential for

this to be extended to the workplace should be explored, particularly in our changing society where increasing numbers of people are working & working longer hours, which can make access to healthcare services and engagement in health improvement activities outside the workplace difficult. There is an opportunity to improve the quality of working life in terms both of health and well-being with commensurate beneficial effects both for the individual and the society (in terms of health and productivity). Workplaces need to become healthier not just in terms of avoiding injury and illness and improving rehabilitation (as emphasised by HSE), but also in terms of promoting good health in practical, cost-effective, sustainable ways. We have an opportunity to investigate the potential for organisational changes designed to achieve such goals and believe that designing and evaluating interventions (both on an individual and an organisational level) should be given a high priority.

On a more positive note, there have been improvements in some of the key variables in this region that are encouraging in terms of the future well-being of the community (e.g. less unemployment, greater income etc). The programme of research, to be developed by WiW, will contribute to this improvement of the health and prosperity of people in this region, with the promulgation of appropriate work with its potential benefits for prosperity, health and well-being of the individual and their community, as a pivotal part of this strategy. While many have referred to the need for a 'joined-up' approach to improving the socio-economic conditions in Merthyr, and elsewhere, there is limited evidence that anything significant is being done to translate the words of intent contained in many strategic and policy documents into real action with meaningful outputs and deliverable outcomes.

Having conducted this comprehensive survey into the socio-demographic, health and occupational status of the Merthyr Tydfil community we are left with a picture of Merthyr and its environs as an archipelago of islands. We accept that we also in this report have had for some purposes to elicit data at a "micro" level and in a sense focus on specific issues in a somewhat "compartmentalised" manner. While we believe that this process has been illuminating, this group of islands can never begin to be viewed as a community unless they are linked by bridges and communication networks. The major challenges are widespread across the community and many of them seem to have a common set of origins for which there may be common remedies.

Similarly, in the context of policy initiatives, we need to clarify what it actually meant by "joined up approaches" and how they can be taken

forward to secure improvements for the community in the short-term and from a longer-term perspective.

Having conducted this analysis, it is our firm view that a person's health at work cannot be considered in isolation. In our view the adoption of a bio-psychosocial model is essential in understanding the complex and dynamic relationship between health and work, looking at the individual within the context of their place, status and role in the community and place of work. We believe that the WiW group, with its configuration of key local partners and its academic steering group offers a unique opportunity to operationalise these new initiatives. In subsequent phases of our initiative we hope to take this vision forwards, in a series of sharply focused evaluations and interventions integrated into the bigger picture.

APPENDIX: References

1. Abasolo L, Blanco M, Bachiller J, Candelas G, Collado P, Lajas C, et al. A health system program to reduce work disability related to musculoskeletal disorders. *Annals of Internal Medicine*. 2005 Sep 20;143(6):404-14.
2. Accordino MP. Comparison of consumers' level of functioning in four community mental health programs. 1998;146.
3. Addley K, McQuillan P, Ruddell M. Creating healthy workplaces in Northern Ireland: evaluation of a lifestyle and physical activity assessment programme. *Occup Med (Lond)*. 2001 Oct;51(7):439-49.
4. Ahrens A, Mulholland K. Vocational rehabilitation and the evolution of disability management: an organizational case study. *Journal of Vocational Rehabilitation*. 2000;15(1):39-46.
5. Akazawa M, Sindelar JL, Paltiel AD. Economic costs of influenza-related work absenteeism. *Value Health*. 2003 Mar-Apr;6(2):107-15.
6. Akukwe C. The potential impact of the 1996 welfare reforms in intimate partner violence. *Family & Community Health*. 1998;20(4):54-62.
7. Al Rub RA. Legal aspects of work related stress in nursing: exploring the issues. *AAOHN Journal*. 2000;48(3):131-5.
8. Allaire SH, Anderson JJ, Meenan RF. Reducing work disability associated with rheumatoid arthritis: identification of additional risk factors and persons likely to benefit from intervention. *Arthritis Care and Research*. 1996;9(5):349-57.
9. Allan C, Lovell K. The Effects of High Performance Work Systems on Employees in Aged Care. *Labour & Industry*. 2003 Apr;13(3):1-17.
10. Allen J, Davies H. Supported employment for people with mental health problems. *A Life in the Day*. 2000;4(1):10-3.
11. Allen S, Carlson G. Psychosocial themes in durable employment transitions. *WORK: A Journal of Prevention, Assessment & Rehabilitation*. 2003;20(3):185-97.
12. Amick BC, Habeck RV, Hunt A, Fossel AH, Chapin A, Keller RB, et al. Measuring the impact of organizational behaviors on work disability prevention and management. *Journal of Occupational Rehabilitation*. 2000 Mar;10(1):21-38.
13. Anagnostis C, Mayer TG, Gatchel RJ, Proctor TJ. The Million Visual Analog Scale: its utility for predicting tertiary rehabilitation outcomes. *Spine*. 2003;28(10):1051-60.
14. Anderson C, Stark C. Emerging Issues from Job Relocation in the High Tech Field: Implications for Employee Assistance Programs. *Employee Assistance Quarterly*. 1985 winter;1(2):37-54.
15. Anderson GB, Boone SE, Watson D. Impact of federal legislation and policy on VR services for consumers who are deaf or hard of hearing: perspectives of agency administrators and program specialists. *American Annals of the Deaf*. 2003;148(4):315-22.
16. Anderson RC, Kaczmarek B. The importance of promoting health in the workplace. *Internet Journal of Academic Physician Assistants*. 2004;4(1).
17. Anderson SG, Eamon MK. Health coverage instability for mothers in working families. *Social Work*. 2004;49(3):395-405.

18. Anderzen I, Arnetz BB. The impact of a prospective survey-based workplace intervention program on employee health, biologic stress markers, and organizational productivity. *J Occup Environ Med.* 2005 Jul;47(7):671-82.
19. Andrews J, Manthorpe J, Watson R. Employment transitions for older nurses: a qualitative study. *Journal of Advanced Nursing.* 2005;51(3):298-306.
20. Anema JR, Cuelenaere B, van der Beek AJ, Knol DL, de Vet HCW, van Mechelen W. The effectiveness of ergonomic interventions on return-to-work after low back pain; a prospective two year cohort study in six countries on low back pain patients sicklisted for 3-4 months. *Occupational and Environmental Medicine.* 2004;61(4):289-94.
21. Anema JR, van der Giezen AM, Buijs PC, van Mechelen W. Ineffective disability management by doctors is an obstacle for return-to-work: a cohort study on low back pain patients sicklisted for 3-4 months. *Occupational and Environmental Medicine.* 2002;59(11):729-33.
22. Antai-Otong D. Psychosocial rehabilitation. *Nursing Clinics of North America.* 2003;38(1):151-60.
23. Anthony WA, Brown MA, Rogers ES, Derringer S. Brief reports. A supported living/supported employment program for reducing the number of people in institutions. *Psychiatric Rehabilitation Journal.* 1999;23(1):57-61.
24. Arfken CL, Wilson JG, Hegedus AM. Challenges encountered in measuring outcome for a rural psychiatric residential program. *International Journal of Rehabilitation Research.* 2002;25(2):77-85.
25. Arksey H. People into Employment: supporting people with disabilities and carers into work. *Health and Social Care in the Community.* 2003;11(3):283-92.
26. Armstrong DL, Castorina J. Community occupational structure, basic services, and coronary mortality in Washington state, 1980-1994. *Annals of Epidemiology.* 1998;8(6):370-7.
27. Armstrong DL, Strogatz D, Wang R. Trends in coronary mortality and community services, associated with occupational structure in New York State, 1980-96. *Journal of Epidemiology and Community Health.* 2002;56(11):868-75.
28. Armstrong FJ, Lyth JR. The occupational therapist's role with Workers' Compensation and the ADA: successful work accommodations and strategies for employer and service provider partnership. *Occupational Therapy in Health Care.* 1999;11(4):9-21.
29. Armstrong J, McKay M. Occupational stress: an interactional perspective. *British Journal of Therapy & Rehabilitation.* 1996;3(1):25-9.
30. Armstrong P, O'Grady K. Compassionate care benefits not compassionate enough. *Canadian Women's Health Network.* 2004;6(7):3-4.
31. Arnold NL, Seekins T. Rural and urban vocational rehabilitation: counselors perceived strengths and problems. *Journal of Rehabilitation.* 1998;64(1):5-13.
32. Asnani V, Sawhney M. Social support and occupational health of working women. *Journal of Health Management.* 2004;6(2):129-39.
33. Atwell S, Hudson LM. Social Security legislation creates Ticket to Work and Work Incentives Improvement Act. *Topics in Spinal Cord Injury Rehabilitation.* 2004;9(4):26-32.

34. Aubry TD, Flynn RJ, Gerber G, Dostaler T. Identifying the core competencies of community support providers working with people with psychiatric disabilities. *Psychiatric Rehabilitation Journal*. 2005;28(4):346-53.
35. Auerbach ES. The individual placement and support model vs. the menu approach to supported employment: where does occupational therapy fit in? *Occupational Therapy in Mental Health*. 2001;17(2):1-19.
36. Azaroff LS, Lax MB, Levenstein C, Wegman DH. Wounding the messenger: the new economy makes occupational health indicators too good to be true. *International Journal of Health Services*. 2004;34(2):271-303.
37. Backer G. [Demographic change, job market development and employment perspectives of elderly workers]. *Z Gerontol Geriatr*. 1996 Jan-Feb;29(1):23-8.
38. Backman CL, Kennedy SM, Chalmers A, Singer J. Participation in paid and unpaid work by adults with rheumatoid arthritis. *Journal of Rheumatology*. 2004;31(1):47-57.
39. Bahlke S. Severely disabled employees and their experiences with enterprise policies concerning job retention. Selected results of an empirical study [German]. *Die Rehabilitation*. 2001;40(4):226-34.
40. Bailey EL, Ricketts SK, Becker DR, Xie H, Drake RE. Do long-term day treatment clients benefit from supported employment? *Psychiatric Rehabilitation Journal*. 1998;22(1):24-9.
41. Baldwin ML. Reducing the costs of work-related musculoskeletal disorders: targeting strategies to chronic disability cases. *J Electromyogr Kinesiol*. 2004 Feb;14(1):33-41.
42. Banks B, Charleston S, Grossi T, Mank D. Workplace supports, job performance, and integration outcomes for people with psychiatric disabilities. *Psychiatric Rehabilitation Journal*. 2001;24(4):389-96.
43. Barak MEM, Findler L, Wind LH. Cross-Cultural Aspects of Diversity and Well-Being in the Workplace: An International Perspective. *Journal of Social Work Research and Evaluation*. 2003 Fall-Winter;4(2):145-69.
44. Baril R, Clarke J, Friesen M, Stock S, Cole D, Work-Ready Group. Management of Return-to-Work Programs for Workers with Musculoskeletal Disorders: A Qualitative Study in Three Canadian Provinces. *Social Science & Medicine*. 2003 Dec;57(11):2101-14.
45. Barthel HR, Miller LS, Deardorff WW, Portenier R. Presentation and response of patients with upper extremity repetitive use syndrome to a multidisciplinary rehabilitation program: a retrospective review of 24 cases. *Journal of Hand Therapy*. 1998;11(3):191-9.
46. Barton LMR. Reported needs of low-income mothers: impact on service utilization and intervention program outcomes. 2002;256.
47. Bartram T, Joiner TA, Stanton P. Factors affecting the job stress and job satisfaction of Australian nurses: implications for recruitment and retention. *Contemporary Nurse*. 2004;17(3):293-304.
48. Beaulieu A, Morin P, Provencher H, Dorvil H. Work as a social determinant of health for mental health services consumers [French]. *Sante Mentale Au Quebec*. 2002;27(1):177-93.
49. Becker DR, Drake RE, Bond GR, Xie H, Dain BJ, Harrison K. Job terminations among persons with severe mental illness participating in supported employment. *Community Mental Health Journal*. 1998;34(1):71-82.

50. Becker DR, Drake RE, Naughton WJ, Jr. Supported employment for people with co-occurring disorders. *Psychiatric Rehabilitation Journal*. 2005;28(4):332-8.
51. Becker DR, Torrey WC, Toscano R, Wyzik PF, Fox TS. Building recovery-oriented services: lessons from implementing Individual Placement and Support (IPS) in community mental health centers. *Psychiatric Rehabilitation Journal*. 1998;22(1):51-4.
52. Bell M, Lysaker P, Bryson G. A behavioral intervention to improve work performance in schizophrenia: work behavior inventory feedback. *Journal of Vocational Rehabilitation*. 2003;18(1):43-50.
53. Bellinger FW. Factors influencing return to work outcomes of social security disability insurance beneficiaries who participated in Montana's federal-state vocational rehabilitation program. 1997;101.
54. Bendix AF, Bendix T, Haestrup C. Can it be predicted which patients with chronic low back pain should be offered tertiary rehabilitation in a functional restoration program? A search for demographic, socioeconomic, and physical predictors... including commentary by Mayer TG. *Spine*. 1998;23(16):1775-84.
55. Bennett JB, Lehman WE. Workplace drinking climate, stress, and problem indicators: assessing the influence of teamwork (group cohesion). *J Stud Alcohol*. 1998 Sep;59(5):608-18.
56. Betz CL. Adolescents with chronic conditions: linkages to adult service systems. *Pediatric Nursing*. 1999 Sep-Oct; 25(5):473-6.
57. Betz CL, Baer MT, Haddad Y, Nwarhukun G, Poulsen M, Vahanvaty U, et al. Secondary analysis of primary and preventive services accessed and perceived service barriers by children with developmental disabilities and their families. *Issues in Comprehensive Pediatric Nursing*. 2004;27(2):83-106.
58. Beutel M, Kayser E, Vorndran A, Farley A, Bleichner F. A work hardening programme integrated into medical rehabilitation -- results and perspectives in psychosomatic rehabilitation [German]. *Die Rehabilitation*. 1998;37(2):85-92.
59. Blankertz L, Robinson S. Adding a vocational focus to mental health rehabilitation. *Psychiatric Services*. 1996;47(11):1216-22.
60. Blankertz L, Staines GL, Magura S, Madison EM, Horowitz E, Spinelli M, et al. The Customized Employment Supports (CES) model of vocational rehabilitation for methadone treatment patients. *Journal of Vocational Rehabilitation*. 2003;19(3):143-55.
61. Block SR, Athens K, Brandenburg G. Using performance-based contracts and incentive payments with managed care: increasing supported employment opportunities for people with developmental disabilities. *Journal of Vocational Rehabilitation*. 2002;17(3):165-74.
62. Bohnert W. The case manager's tasks under the statutory accident insurance scheme [German]. *Die Rehabilitation*. 1997;36(1):39-47.
63. Boschen KA, Tonack M, Gargaro J. Long-term adjustment and community reintegration following spinal cord injury. *International Journal of Rehabilitation Research*. 2003;26(3):157-64.
64. Bourquin E, Mascia J, Rusenski S. Community-based services for deaf-blind consumers: a successful rehabilitation and vocational model. *Journal of Visual Impairment & Blindness*. 2002;96(9):668-71.

65. Boyle DK, Bott MJ, Hansen HE, Woods CQ, Taunton RL. Managers' leadership and critical care nurses' intent to stay. *American Journal of Critical Care*. 1999;8(6):361-71.
66. Bozzer M, Samson D, Anson J. An evaluation of a community-based vocational rehabilitation program for adults with psychiatric disabilities. *Canadian Journal of Community Mental Health*. 1999;18(1):165-79.
67. Brannon R, Orrick S. Women and Managed Care: The Employer's Perspective. *Women's Health Issues*. 1998 Jan-Feb;8(1):15-24.
68. Braveman BH. A qualitative exploration of the sub-scales of the Occupational Performance History Interview (OPHI-II). 2002;107.
69. Breuer Z. Initiatives. Partners for progress: employers working with people with disabilities. *A Life in the Day*. 2000;4(1):25-7.
70. Bricout JC. Partnering with the 21st century workplace: leveraging workplace ecology. *WORK: A Journal of Prevention, Assessment & Rehabilitation*. 2003;21(1):45-56.
71. Bricout JC. Using telework to enhance return to work outcomes for individuals with spinal cord injuries. *NeuroRehabilitation*. 2004;19(2):147-59.
72. Brinkman A. Occupational stress in hospitals -- a nursing perspective. *Kai Tiaki: Nursing New Zealand*. 2002;8(6):21-3.
73. Brouwer WB, van Exel NJ, Koopmanschap MA, Rutten FF. Productivity costs before and after absence from work: as important as common? *Health Policy*. 2002 Aug;61(2):173-87.
74. Bruch LA. Implementation of the Americans with Disabilities Act: employer commitment to Title I and implications for hiring in Northeastern Pennsylvania. 1997;173.
75. Bruyere SM. Using the International Classification of Functioning, Disability and Health (ICF) to promote employment and community integration in rehabilitation. *Rehabilitation Education*. 2005;19(2-3):105-17.
76. Bruyere SM, Erickson WA, VanLooy S. Comparative study of workplace policy and practices contributing to disability nondiscrimination. *Rehabilitation Psychology*. 2004;49(1):28-38.
77. Buckle D. Social outcomes of employment: the experience of people with mental ill health. *A Life in the Day*. 2004;8(2):17-22.
78. Burckel E, Ashraf T, de Sousa Filho JP, Forleo Neto E, Guarino H, Yauti C, et al. Economic impact of providing workplace influenza vaccination. A model and case study application at a Brazilian pharma-chemical company. *Pharmacoeconomics*. 1999 Nov;16(5 Pt 2):563-76.
79. Burton WN, Chen CY, Conti DJ, Schultz AB, Edington DW. Measuring the relationship between employees' health risk factors and corporate pharmaceutical expenditures. *Journal of Occupational and Environmental Medicine*. 2003 Aug;45(8):793-802.
80. Burton WN, Connerty CM, Schultz AB, Chen CY, Edington DW. Bank One's worksite-based asthma disease management program. *J Occup Environ Med*. 2001 Feb;43(2):75-82.
81. Burton WN, Conti DJ. Disability management: corporate medical department management of employee health and productivity. *Journal of Occupational and Environmental Medicine*. 2000;42(10):1006-12.

82. Bush DM, Autry JH, 3rd. Substance abuse in the workplace: epidemiology, effects, and industry response. *Occup Med.* 2002 Jan-Mar;17(1):13-25, iii.
83. Busse M, Bridger B. Cost benefits of ergonomic intervention in a hospital: a preliminary study using Oxenburgh's productivity model. *Curationis: South African Journal of Nursing.* 1997;20(3):54-8.
84. Butterworth R, Dean J. Putting the missing rungs into the vocational 'ladder'. *A Life in the Day.* 2000;4(1):5-9.
85. Calway RC. Workplace violence: protecting your practice from an epidemic. *J Med Pract Manage.* 2001 Sep-Oct;17(2):79-82.
86. Carrillo LPL, Mauro MYC. The use and abuse of alcohol and other drugs: actions of health promotion and prevention at the work place [Portuguese]. *Revista Enfermagem Uerj.* 2003;11(1):25-33.
87. Carroll P, Wachs JE. Managing asthma in the workplace: an overview for occupational health nurses. *Aaohn J.* 2004 Nov;52(11):481-9; quiz 90-1.
88. Cash B, Sullivan S, Barghout V. Total costs of IBS: employer and managed care perspective. *Am J Manag Care.* 2005 Apr;11(1 Suppl):S7-16.
89. Casper ES, Oursler J, Schmidt LT, Gill KJ. Measuring practitioners' beliefs, goals, and practices in psychiatric rehabilitation. *Psychiatric Rehabilitation Journal.* 2002;25(3):223-34.
90. Castro MA. The efficacy of chemical dependency rehabilitation treatment provided by an Employee Assistance Program. 2000;62.
91. Chandler D, Meisel J, Hu T, McGowen M, Madison K. A capitated model for a cross-section of severely mentally ill clients: employment outcomes. *Community Mental Health Journal.* 1997;33(6):501-16.
92. Chandola T, Siegrist J, Marmot M. Do changes in effort-reward imbalance at work contribute to an explanation of the social gradient in angina? *Occupational and Environmental Medicine.* 2005;62(4):223-30.
93. Chapman J. Workplace assessment for people with mental health issues. *A Life in the Day.* 2001;5(4):8-15.
94. Charbonneau A, Bruning W, Titus-Howard T, Ellerbeck E, Whittle J, Hall S, et al. The community initiative on depression: report from a multiphase work site depression intervention. *Journal of Occupational and Environmental Medicine.* 2005;47(1):60-7.
95. Cheyne A, Tomas JM, Cox S, Oliver A. Perceptions of safety climate at different employment levels. *Work & Stress.* 2003;17(1):21-37.
96. Christensen FB. Lumbar spinal fusion: outcome in relation to surgical methods, choice of implant and postoperative rehabilitation. *Acta Orthopaedica Scandinavica.* 2004;313:3-41.
97. Clarke M, Dick J, Zwarenstein M, Diwan V. DOTS for temporary workers in the agricultural sector. An exploratory study in tuberculosis case detection. *Curationis: South African Journal of Nursing.* 2003;26(4):66-71.
98. Clements PT, DeRanieri JT, Fay-Hillier TM, Henry GC. Benefits of community meetings in the corporate setting after the suicide of a coworker. *J Psychosoc Nurs Ment Health Serv.* 2003 Apr;41(4):44-9.
99. Coble-Temple A, Mona LR, Bleecker T. Accessing personal assistance services in the workplace: struggles and successes. *Journal of Vocational Rehabilitation.* 2003;18(2):113-23.

100. Colling KK. Small business development centers and vocational rehabilitation: opening doors to entrepreneurship for people with disabilities. 2001;204.
101. Collins JW, Wolf L, Bell J, Evanoff B. An evaluation of a "best practices" musculoskeletal injury prevention program in nursing homes. *Injury Prevention*. 2004;10(4):206-11.
102. Collins ME, Mowbray CT. Understanding the policy context for supporting students with psychiatric disabilities in higher education. *Community Mental Health Journal*. 2005;41(4):431-50.
103. Columbi AM. Depression management in the workplace: a case study. *J Manag Care Pharm*. 2005 Apr;11(3 Suppl):S16-20.
104. Conroy L, McKenna K. Vocational outcome following spinal cord injury. *Spinal Cord*. 1999;37(9):624-33.
105. Conyers LM. The impact of vocational services and employment on people with HIV/AIDS. *WORK: A Journal of Prevention, Assessment & Rehabilitation*. 2004;23(3):205-14.
106. Cook JA, Lehman AF, Drake R, McFarlane WR, Gold PB, Leff HS, et al. Integration of psychiatric and vocational services: a multisite randomized, controlled trial of supported employment. *American Journal of Psychiatry*. 2005;162(10):1948-56.
107. Copello AG, Velleman RDB, Howling VM. The use of volunteers as befrienders within a community alcohol team. *Journal of Substance Misuse for Nursing, Health and Social Care*. 1998;3(4):189-99.
108. Corner RA, Kielhofner G, Lin F. Construct validity of a work environment impact scale. *WORK: A Journal of Prevention, Assessment & Rehabilitation*. 1997;9(1):21-34.
109. Costello D. Once a party drug, meth moves into the workplace. *Los Angeles Times*. 2004 Sep 13; Health:F1.
110. Cox T, Leka S, Ivanov I, Kortum E. Work, employment and mental health in Europe. *Work & Stress*. 2004;18(2):179-85.
111. Crone-Todd DE, Dillon EM, Silverman K, Sylvest CE, Wong CJ. Computer-based typing and keypad skills training outcomes of unemployed injection drug users in a therapeutic workplace. *Substance Use & Misuse*. 2004 2004;39(13-14):2325-53.
112. Crow N, Pierce R. Perception & reality: plain talk: an overview of public funding for brain injury. *Premier Outlook*. 2005;5(1):5-11.
113. Crowther RE, Marshall M. Employment rehabilitation schemes for people with mental health problems in the North West region: service characteristics and utilisation. *Journal of Mental Health*. 2001;10(4):373-81.
114. Crudden A, Sansing W, Butler S. Overcoming barriers to employment: strategies of rehabilitation providers. *Journal of Visual Impairment & Blindness*. 2005;99(6):325-35.
115. Curtis J. Employment and disability in the United Kingdom: an outline of recent legislative and policy changes. *WORK: A Journal of Prevention, Assessment & Rehabilitation*. 2003;20(1):45-51.
116. Daley M, Orange J, Pozner A, Phillips H, Woodhouse J. The Aylesbury story -- development of new work and daytime opportunities for people with mental health problems in Aylesbury Vale. *A Life in the Day*. 2000;4(2):6-15.

117. Davies H, Davies B, Davies S, Moule D. Foundation for employment and further education: course at Bridgend College to help people with enduring mental illness. *A Life in the Day*. 2002;6(2):7-11.
118. Davis C, Cooke M, Holzhauser K, Jones M, Finucane J. The effect of aromatherapy massage with music on the stress and anxiety levels of emergency nurses. *Australasian Emergency Nursing Journal*. 2005;8(1-2):43-50.
119. de Croon EM, Blonk RWB, de Zwart BCH, Frings-Dresen MHW, Broersen JPJ. Job stress, fatigue, and job dissatisfaction in Dutch lorry drivers: towards an occupation specific model of job demands and control. *Occupational and Environmental Medicine*. 2002;59(6):356-61.
120. de Jonge D, Rodger S, Fitzgibbon H. Putting technology to work: users' perspective on integrating assistive technology into the workplace. *WORK: A Journal of Prevention, Assessment & Rehabilitation*. 2001;16(2):77-89.
121. Dean BB, Gerner D, Gerner RH. A systematic review evaluating health-related quality of life, work impairment, and healthcare costs and utilization in bipolar disorder. *Curr Med Res Opin*. 2004;20(2):139-54.
122. DeGroot T, Kiker DS. A meta-analysis of the non-monetary effects of employee health management programs. *Human Resource Management*. 2003;42(1):53-69.
123. Demmin M. Considering the further development of vocational rehabilitation -- the perspective of Bundesanstalt fur Arbeit [German]. *Die Rehabilitation*. 1997;36(1):16-21.
124. DeVivo MJ. Discharge disposition from model spinal cord injury care system rehabilitation programs. *Archives of Physical Medicine and Rehabilitation*. 1999;80(7):785-90.
125. Dewa CS, Lasage A, Goering P, Caveen M. Nature and prevalence of mental illness in the workplace. *Healthcare Papers*. 2004;5(2):12-25.
126. Dillon EM, Wong CJ, Sylvest CE, Crone-Todd DE, Silverman K. Computer-based typing and keypad skills training outcomes of unemployed injection drug users in a therapeutic workplace. *Substance Use & Misuse*. 2004;39(13-14):2325-53.
127. DiNubile NA, Sherman C. Exercise and the bottom line: promoting physical and fiscal fitness in the workplace: a commentary. *Physician and Sportsmedicine*. 1999 Feb; 27(2):37-8.
128. Donnell CM. The clubhouse model in Michigan: a preliminary examination of individual and organizational characteristics associated with employment outcomes. 2001;187.
129. Dorio J. An individual placement and support programme is more effective than skills training and temporary employment for people with severe mental illness. *Evidence Based Mental Health*. 2005;8(1).
130. Dow-Clarke RA. Work-life balance in an industrial setting: focus on advocacy. *AAOHN Journal*. 2002;50(2):67-74.
131. Drake RE. A brief history of the individual placement and support model. *Psychiatric Rehabilitation Journal*. 1998;22(1):3-7.
132. Drebing CE, Rosenheck R, Schutt R, Kasprow WJ, Penk W. Patterns in referral and admission to vocational rehabilitation associated with coexisting psychiatric and substance-use disorders. *Rehabilitation Counseling Bulletin*. 2003 Fall; 47(1):15-23.

133. Drebing CE, Van Ormer EA, Schutt RK, Krebs C, Losardo M, Boyd C, et al. Client goals for participating in VHA vocational rehabilitation: distribution and relationship to outcome. *Rehabilitation Counseling Bulletin*. 2004 Spring; 47(3):162-72.
134. Dudley RA, Rennie DJ, Luft HS. Population choice and variable selection in the estimation and application of risk models. *Inquiry*. 1999;36(2):200-11.
135. Duhault JL. Stress prevention and management: A challenge for patients and physicians. *Metabolism-Clinical and Experimental*. 2002 Jun;51(6):46-8.
136. Duquette A, Kerouac S, Sandhu BK, Saulnier P, Lechance L. Validation of a model of psychosocial determinants of health in the workplace for geriatric nurses [French]. *Sante Mentale Au Quebec*. 1997;22(2):257-78.
137. Durand M, Loisel P, Hong QN, Charpentier N. Helping clinicians in work disability prevention: the work disability diagnosis interview. *Journal of Occupational Rehabilitation*. 2002;12(3):191-204.
138. Durand M, Vachon B, Loisel P, Berthelette D. Constructing the program impact theory for an evidence-based work rehabilitation program for workers with low back pain. *WORK: A Journal of Prevention, Assessment & Rehabilitation*. 2003;21(3):233-42.
139. Eastwood EA, Hagglund KJ, Ragnarsson KT, Gordon WA, Marino RJ. Medical rehabilitation length of stay and outcomes for persons with traumatic spinal cord injury -- 1990-1997. *Archives of Physical Medicine and Rehabilitation*. 1999;80(11):1457-63.
140. Edwards P. Building bridges to work: the changing world of employment training and support. *A Life in the Day*. 2005;9(1):24-7.
141. Eklund JA. Ergonomics and quality management--humans in interaction with technology, work environment, and organization. *Int J Occup Saf Ergon*. 1999;5(2):143-60.
142. Eklund M, Hallberg IR. Work situation of psychiatric occupational therapists in Sweden: differences between county council and municipality employees. *Scandinavian Journal of Occupational Therapy*. 1999;6(4):147-56.
143. Ellexson MT, Larson BA. Ergonomic programs: occupational therapy's role for the future. *OT Practice*. 2001 Aug 6; 6(14):Suppl: CE-1-CE-7.
144. Emmett EA. Occupational contact dermatitis I: incidence and return to work pressures. *Am J Contact Dermat*. 2002 Mar;13(1):30-4.
145. Evenson KR, Fleury J. Barriers to outpatient cardiac rehabilitation participation and adherence. *Journal of Cardiopulmonary Rehabilitation*. 2000;20(4):241-6.
146. Farrell G, Cubit K. Nurses under threat: a comparison of content of 28 aggression management programs. *International Journal of Mental Health Nursing*. 2005;14(1):44-53.
147. Faucett J, Blanc PD, Yelin E. The impact of carpal tunnel syndrome on work status: implications of job characteristics for staying on the job. *Journal of Occupational Rehabilitation*. 2000;10(1):55-69.
148. Feldes W. Modern team work and employment of people with disabilities [German]. *Die Rehabilitation*. 1999;38(4):227-31.
149. Fenwick P. A pathway to employment. *A Life in the Day*. 2003;7(1):4-5.
150. Ferrier SE, Lavis JN. With health comes work? People living with HIV/AIDS consider returning to work. *AIDS Care: Psychological & Socio Medical Aspects of AIDS/HIV*. 2003;15(3):423-35.

151. Finch JR. The relationship among individuals with serious mental illness, vocational rehabilitation services and outcomes. 1997;124.
152. Fisher TF. Perception differences between groups of employees identifying the factors that influence a return to work after a work-related musculoskeletal injury. *Work*. 2003;21(3):211-20.
153. Fitzgerald S, Dienemann J, Cadorette MF. Domestic violence in the workplace. *AAOHN J*. 1998 Jul;46(7):345-53; quiz 54-5.
154. Fletcher CE. The relationship of stress to illness and injuries in nurses. 1999;228.
155. Forchheimer M, Tate DG. Enhancing community re-integration following spinal cord injury. *NeuroRehabilitation*. 2004;19(2):103-13.
156. Fountain JE. Constructing the information society: women, information technology, and design. *Technology in Society*. 2000 Jan;22(1):45-62.
157. Frazier LM, Ho H, Molgaard CA. Variability in physician management of employment during pregnancy. *Women & Health*. 2001;34(4):51-63.
158. Freeman EJ. Union-management solutions for preventing workplace injury of older workers. *WORK: A Journal of Prevention, Assessment & Rehabilitation*. 2004;22(2):145-51.
159. Frerichs F, Naegele G. Discrimination of older workers in Germany: obstacles and options for the integration into employment. *Journal of Aging & Social Policy*. 1997;9(1):89-101.
160. Friedland DS, Price RH. Underemployment: Consequences for the Health and Well-Being of Workers. *American Journal of Community Psychology*. 2003 Sept;32(1-2):33-45.
161. Friesen MN, Yassi A, Cooper J. Return-to-work: the importance of human interactions and organizational structures. *WORK: A Journal of Prevention, Assessment & Rehabilitation*. 2001;17(1):11-22.
162. Garcy P, Mayer T, Gatchel RJ. Recurrent or new injury outcomes after return to work in chronic disabling spinal disorders: tertiary prevention efficacy of functional restoration treatment. *Spine*. 1996;21(8):952-9.
163. Gates LB. Workplace accommodation as a social process. *Journal of Occupational Rehabilitation*. 2000 Mar;10(1):85-98.
164. Gates LB, Akabas SH, Oran-Sabia V. Relationship accommodations involving the work group: improving work prognosis for persons with mental health conditions. *Psychiatric Rehabilitation Journal*. 1998;21(3):264-72.
165. Getzel EE, Briel LW, Kregel J. Comprehensive career planning: the VCU Career Connections Program. *WORK: A Journal of Prevention, Assessment & Rehabilitation*. 2000;14(1):41-9.
166. Gilbride D, Stensrud R, Ehlers C, Evans E, Peterson C. Employers' attitudes toward hiring persons with disabilities and vocational rehabilitation services. *Journal of Rehabilitation*. 2000;66(4):17-23.
167. Gillespie BM, Kermode S. How do perioperative nurses cope with stress? *Contemporary Nurse*. 2003;16(1-2):20-9.
168. Gilson SF. Case management and supported employment: a good fit. *Journal of Case Management*. 1998;7(1):10-7.
169. Gioia D. Career development in schizophrenia: a heuristic framework. *Community Mental Health Journal*. 2005;41(3):307-25.

170. Gobel J. Case management to keep disabled persons in employment -- a model project of the Bavarian Regional Employment Office [German]. *Die Rehabilitation*. 1999;38(4):209-19.
171. Goetzel RZ, Ozminkowski RJ. Disease management as a part of total health and productivity management. *Disease Management & Health Outcomes*. 2000 Sep;8(3):121-8.
172. Goldberg RW, Rollins AL, McNary SW. The working alliance inventory: modification and use with people with serious mental illnesses in a vocational rehabilitation program. *Psychiatric Rehabilitation Journal*. 2004;27(3):267-70.
173. Goldman L, Lewis J. Workplace rehabilitation. *Occupational Health*. 2004;56(12):12-4.
174. Goldner E, Bilsker D, Gilbert M, Myette L, Corbiere M, Dewa CS. Disability management, return to work and treatment. *Healthcare Papers*. 2004;5(2):76-90.
175. Goodall P, Ghiloni CT. The changing face of publicly funded employment services. *Journal of Head Trauma Rehabilitation*. 2001;16(1):94-106.
176. Goodwin GL. Success-rate probabilities of persons with disabilities in the Nebraska Department of Vocational Rehabilitation. 1998;155.
177. Goossens MEJ, Evers SMA. Economic evaluation of back pain interventions. *Journal of Occupational Rehabilitation*. 1997;7(1):15-32.
178. Gordon J, Mills B. Developing services for people with mental health problems in the New Deal for Disabled People personal advisor pilots. *A Life in the Day*. 2001;5(3):9-15.
179. Gowdy EA. "Work is the best medicine I can have": Identifying best practices in supported employment for people with psychiatric disabilities. 2000;336.
180. Gowdy EA, Carlson LS, Rapp CA. Organizational factors differentiating high performing from low performing supported employment programs. *Psychiatric Rehabilitation Journal*. 2004;28(2):150-6.
181. Graham C. Working for individual choice. *A Life in the Day*. 2000;4(4):29-32.
182. Grasso JM. Predicting successful employment outcomes for students with disabilities. 2004;80.
183. Greenberg PE, Birnbaum HG, Kessler RC, Morgan M, Stang P. Impact of illness and its treatment on workplace costs: regulatory and measurement issues. *J Occup Environ Med*. 2001 Jan;43(1):56-63.
184. Guinness L, Walker D, Ndubani P, Jama J, Kelly P. Surviving the impact of HIV-related illness in the Zambian business sector. *Aids Patient Care and Stds*. 2003 Jul;17(7):353-63.
185. Gurevitz O, Fogel RI, Herner ME, Sample R, Strickberger AS, Daoud EG, et al. Patients with an ICD can safely resume work in industrial facilities following simple screening for electromagnetic interference. *Pacing and Clinical Electrophysiology*. 2003;26(8):1675-8.
186. Gustavsen B. Changes in Work Organization and Public Support. *Futures*. 1996 Mar;28(2):139-52.
187. Gutierrez AC. Occupational risks in Latin America. *International Social Security Review*. 2005 Apr 2005-Sep 2005;58(2-3):119-32.
188. Guzman J, Esmail R, Karjalainen K, Malmivaara A, Irvin E, Bombardier C. Multidisciplinary bio-psycho-social rehabilitation for chronic low-back pain. *The Cochrane Library*. 2005;4.

189. Habeck RV, Hunt HA. Disability management perspectives: developing accommodating work environments through disability management. *American Rehabilitation*. 1999;25(1):18-25.
190. Hagglund KJ, Stout BJ, Frank RG. Gazing into the crystal ball: health care, health policy, and rehabilitation for spinal cord injury. *Topics in Spinal Cord Injury Rehabilitation*. 2003;9(1):63-73.
191. Hagner D, Cooney B. Building employer capacity to support employees with severe disabilities in the workplace. *WORK: A Journal of Prevention, Assessment & Rehabilitation*. 2003;21(1):77-82.
192. Hannigan B, Edwards D, Burnard P. Stress and stress management in clinical psychology: findings from a systematic review. *Journal of Mental Health*. 2004;13(3):235-45.
193. Harkness RJ. A program evaluation of employer satisfaction and service delivery approaches by public rehabilitation counselors acting as business services representatives in Michigan. 2001;204.
194. Harris N. Management of work-related stress in nursing. *Nursing Standard*. 2001 Nov 21-27; 16(10):47-52.
195. Harvey HD, Fleming P, Patterson M. A rapid appraisal method for reviewing the effectiveness of workplace smoking policies in large and medium sized organisations. *J R Soc Health*. 2001 Mar;121(1):50-5.
196. Hassin J. After substance abuse treatment, then what? The NARTC/Oregon Tribal and Vocational Rehabilitation Project. *American Rehabilitation*. 1996;22(2):12-9.
197. Head J, Kivimaki M, Martikainen P, Vahtera J, Ferrie JE, Marmot MG. Influence of change in psychosocial work characteristics on sickness absence: the Whitehall II study. *Journal of Epidemiology and Community Health*. 2006;60(1):55-61.
198. Heathcote K. EAPs: targeting specific employee issues. *Occupational Health*. 1996;48(2):58-9.
199. Helge D. Turning workplace anger and anxiety into peak performance. Strategies for enhancing employee health and productivity. *Aaohn J*. 2001 Aug;49(8):399-406; quiz 7-8.
200. Helm RE, Powell NJ, Nieuwenhuijsen ER. A return to work program for injured workers: a reassignment model. *WORK: A Journal of Prevention, Assessment & Rehabilitation*. 1999;12(2):123-31.
201. Hemstrom O. Does the work environment contribute to excess male mortality? *Social Science & Medicine*. 1999;49(7):879-94.
202. Henry AD, Lucca AM. Facilitators and barriers to employment: the perspectives of people with psychiatric disabilities and employment service providers. *WORK: A Journal of Prevention, Assessment & Rehabilitation*. 2004;22(3):169-82.
203. Hertting A, Nilsson K, Theorell T, Larsson US. Downsizing and reorganization: demands, challenges and ambiguity for registered nurses. *Journal of Advanced Nursing*. 2004;45(2):145-54.
204. Hicks N. The proper relationship of public health and occupational health. *Journal of Occupational Science: Australia*. 1997;4(3):106-11.

205. Higgins DN, Tierney J, Hanrahan L. Preventing young worker fatalities: the Fatality Assessment and Control Evaluation (FACE) Program. *AAOHN Journal*. 2002;50(11):508-14.
206. Higgins P, Ezike C, Orris P. Occupational health services for municipal employees. *Occupational Medicine: State of the Art Reviews*. 2001;16(1):11-21.
207. Hignett S. Hospital ergonomics: a qualitative study to explore the organizational and cultural factors. *Ergonomics*. 2003;46(9):882-903.
208. Hillier D, Fewell F, Cann W, Shephard V. Wellness at work: enhancing the quality of our working lives. *Int Rev Psychiatry*. 2005 Oct;17(5):419-31.
209. Hindle D. China in transition: the new health insurance scheme for the urban employed. *Australian Health Review*. 2000;23(3):122-31.
210. Hinman MR. Factors influencing work disability for women who have undergone mastectomy. *Women & Health*. 2001;34(2):45-60.
211. Hocker SM, Trofino J. Transformational leadership: the development of a model of nursing case management by the Army Nurse Corps. *Lippincott's Case Management*. 2003;8(5):208-13.
212. Hodgson M, Brodt W, Henderson D, Loftness V, Rosenfeld A, Woods J, et al. Needs and opportunities for improving the health, safety, and productivity of medical research facilities. *Environ Health Perspect*. 2000 Dec;108 Suppl 6:1003-8.
213. Honeycutt TC. Program and benefit paths to the Social Security Disability Insurance program. *Journal of Vocational Rehabilitation*. 2004;21(2):83-94.
214. Hoogendoorn WE, Bongers PM, de Vet HCW, Ariens GAM, van Mechelen W, Bouter LM. High physical work load and low job satisfaction increase the risk of sickness absence due to low back pain: results of a prospective cohort study. *Occupational and Environmental Medicine*. 2002;59(5):323-8.
215. Hoogendoorn WE, van Poppel MNM, Bongers PM, Koes BW, Bouter LM. Systematic review of psychosocial factors at work and private life as risk factors for back pain. *Spine*. 2000;25(16):2114-25.
216. Hooper J, Charney W. Creation of a safety culture: reducing workplace injuries in a rural hospital setting. *AAOHN Journal*. 2005;53(9):394-8.
217. Howe ML. Keeping injured employees working: overcoming common problems. *AAOHN Journal*. 1996;44(10):500-4.
218. Hu D. Predictors of successful occupational rehabilitation for persons living with disabilities. 1997;140.
219. Hughes TL, Smith L, Howard MJ. Florida's intervention project for nurses: a description of recovering nurses' reentry to practice. *Journal of Addictions Nursing*. 1998;10(2):63-9.
220. Hung S, Morrison DR, Whittington LA, Fein SB. Prepartum work, job characteristics, and risk of Cesarean delivery. *Birth*. 2002;29(1):10-7.
221. Hunter SJ, Shaha S, Flint D, Tracy DM. Predicting return to work: a long-term follow-up study of railroad workers after low back injuries... including commentary by Hazard RG. *Spine*. 1998;23(21):2319-28.
222. Huntington S. Managed care. Provider terminations: strategies for risk management. *Healthcare Financial Management*. 2000;54(3):35-7.

223. Hyde M, Hagberg J, Oxenstierna G, Theorell T, Westerlund H. Bridges, pathways and valleys: labour market position and risk of hospitalization in a Swedish sample aged 55-63. *Scandinavian Journal of Public Health*. 2004;32(5):368-73.
224. Inge KJ, Strobel W, Wehman P, Todd J, Targett P. Vocational outcomes for persons with severe physical disabilities: design and implementation of workplace supports. *NeuroRehabilitation*. 2000;15(3):175-87.
225. Innes E, Straker L. Strategies used when conducting work-related assessments. *WORK: A Journal of Prevention, Assessment & Rehabilitation*. 2002;19(2):149-65.
226. Jacobson BH, Aldana SG, Goetzel RZ, Vardell KD, Adams TB, Pietras RJ. The relationship between perceived stress and self-reported illness-related absenteeism. *American Journal of Health Promotion*. 1996;11(1):54-61.
227. Jacobson JW. Rehabilitation services for people with mental retardation and psychiatric disabilities: dilemmas and solutions for public policy. *Journal of Rehabilitation*. 1996;62(1):11-22.
228. Jakobsen K. Employment and the reconstruction of self. A model of space for maintenance of identity by occupation. *Scandinavian Journal of Occupational Therapy*. 2001;8(1):40-8.
229. James P, Walters D. Is workplace health and safety really revitalised? *Occupational Health Review*. 2004;6(9 ref).
230. Jeppesen HJ, Boggild H, Larsen K. Regulations as prevention strategies for shiftwork problems... XIIth International Symposium on Night and Shiftwork. Foxwoods symposium series, June 1995. *International Journal of Occupational and Environmental Health*. 1997;3(3).
231. Johnson CJ, Croghan E, Crawford J. The problem and management of sickness absence in the NHS: considerations for nurse managers. *Journal of Nursing Management*. 2003;11(5):336-42.
232. Johnson KL, Fraser RT. Mitigating the impact of multiple sclerosis on employment. *Physical Medicine and Rehabilitation Clinics of North America*. 2005;16(2):571-82.
233. Johnson KL, Klasner ER, Amtmann D, Kuehn CM, Yorkston KM. Medical, psychological [sic], social, and programmatic barriers to employment for people with multiple sclerosis. *Journal of Rehabilitation*. 2004;70(1):38-49.
234. Johnson LS, Archer-Heese G, Caron-Powles DL, Dowson TM. Work hardening: outdated fad or effective intervention? *WORK: A Journal of Prevention, Assessment & Rehabilitation*. 2001;16(3):235-43.
235. Jones MC, Smith K, Johnston DW. Exploring the Michigan model: the relationship of personality, managerial support and organizational structure with health outcomes in entrants to the healthcare environment. *Work & Stress*. 2005;19(1):1-22.
236. Jones WJ, Johnson JA, Beasley LW, Johnson JP. Allied health workforce shortages: the systemic barriers to response. *Journal of Allied Health*. 1996;25(3):219-32.
237. Juvonen-Posti P, Kallanranta T, Eksyma S, Piirainen K, Keinanen-Kiukaanniemi S. Into work, through tailored paths: a two-year follow-up of the return-to-work rehabilitation and re-employment project. *International Journal of Rehabilitation Research*. 2002;25(4):313-30.

238. Kaerlev L, Jacobsen LB, Olsen J, Bonde JP. Long-term sick leave and its risk factors during pregnancy among Danish hospital employees. *Scandinavian Journal of Public Health*. 2004;32(2):111-7.
239. Kaila-Kangas L, Kivimaki M, Riihimaki H, Luukkonen R, Kirjonen J, Leino-Arjas P. Psychosocial factors at work as predictors of hospitalization for back disorders: a 28-year follow-up of industrial employees. *Spine*. 2004;29(16):1823-30.
240. Kane DJ. An exploratory study of workplace supports among Canadian health care employees. 2003;143.
241. Kearns D. A natural alliance. *Occupational Health*. 1997;49(5):182-4.
242. Kemp PA, Neale J. Employability and problem drug users. *Critical Social Policy*. 2005;25(1):28-46.
243. Kendall NAS, Thompson BF. A pilot program for dealing with the comorbidity of chronic pain and long-term unemployment. *Journal of Occupational Rehabilitation*. 1998;8(1):5-26.
244. Kenny DT. Exercise-based rehabilitation for injured workers: programme efficacy and identification of factors predicting programme completion and outcome. *International Journal of Rehabilitation Research*. 2000;23(1):7-17.
245. Kim P, Hayden JA, Mior SA. The cost-effectiveness of a back education program for firefighters: a case study. *Journal of the Canadian Chiropractic Association*. 2004;48(1):13-9.
246. King T, Emery R, Warren S, Landis T. A collaborative approach to returning clients to work during the first year after spinal cord injury. *Topics in Spinal Cord Injury Rehabilitation*. 2004;9(4):33-42.
247. Kirchner C, Johnson G, Harkins D. Research to improve vocational rehabilitation: employment barriers and strategies for clients who are blind or visually impaired. *Journal of Visual Impairment & Blindness*. 1997;91(4):377-92.
248. Kirschenbaum A. The organization of vocational rehabilitation: the structure of success. *International Journal of Rehabilitation Research*. 1999;22(3):215-25.
249. Kivimaki M, Head J, Ferrie JE, Hemingway H, Shipley MJ, Vahtera J, et al. Working while ill as a risk factor for serious coronary events: the Whitehall II Study. *American Journal of Public Health*. 2005;95(1):98-102.
250. Klonoff PS, Lamb DG, Henderson SW, Shepherd J. Outcome assessment after milieu-oriented rehabilitation: new considerations. *Arch Phys Med Rehabil*. 1998 Jun;79(6):684-90.
251. Koenes JC. After the injury: what is it like for injured nurses? 2001;145.
252. Kompier MAJ, Geurts SAE, Grundemann RWM, Vink P, Smulders PGW. Cases in stress prevention: The success of a participative and stepwise approach. *Stress Medicine*. 1998 Jul;14(3):155-68.
253. Kosciulek JF. A multidimensional approach to the structure of consumer satisfaction with vocational rehabilitation services. *Rehabilitation Counseling Bulletin*. 2003 Winter; 46(2):92-7.
254. Kossek EE, Ozeki C. Bridging the Work-Family Policy and Productivity Gap: A Literature Review. *Community, Work & Family*. 1999 Apr;2(1):7-32.
255. Kramer C, Gammerler-Schulte H. Psychosocial predictors of disability pension application following bypass surgery [German]. *Die Rehabilitation*. 1998;37(1):21-7.

256. Krupa T, McCourty K, Bonner D, Von Briesen B, Scott R. Voices, Opportunities & Choices Employment Club: transforming sheltered workshops using an affirmative business approach. *Canadian Journal of Community Mental Health*. 1999;18(2):87-98.
257. Lahiri S, Gold J, Levenstein C. Net-cost model for workplace interventions. *J Safety Res*. 2005;36(3):241-55.
258. Landeen J. Review: social skills training, supported employment programmes, and cognitive behaviour therapy improve some outcomes in schizophrenia. *Evidence Based Nursing*. 2001;4(4).
259. Lanteri-Minet M, Allain H, Nachit-Ouinekh F, Bentue-Ferrer D, Gilbert P, Schuck S, et al. NOEMIE : an epidemiological study of migraine at work: results from 17 occupational health centres. *Revue Neurologique*. 2004 Oct;160(10):928-34.
260. Laschinger HK, Havens DS. The effect of workplace empowerment on staff nurses' occupational mental health and work effectiveness. *J Nurs Adm*. 1997 Jun;27(6):42-50.
261. Laschinger HKS, Finegan J, Shamian J. Promoting nurses' health: Effect of empowerment on job strain and work satisfaction. *Nursing Economics*. 2001 Mar-Apr;19(2):42-52.
262. Latimer EA, Bush PW, Becker DR, Drake RE, Bond GR. The cost of high-fidelity supported employment programs for people with severe mental illness. *Psychiatric Services*. 2004;55(4):401-6.
263. Lavigne JE, Phelps CE, Mushlin A, Lednar WM. Reductions in individual work productivity associated with type 2 diabetes mellitus. *Pharmacoeconomics*. 2003;21(15):1123-34.
264. Lavoie-Tremblay M, Bourbonnais R, Viens C, Vezina M, Durand PJ, Rochette L. Improving the psychosocial work environment. *Journal of Advanced Nursing*. 2005;49(6):655-64.
265. Lee D, Yoo B, Peters R. Cost-benefit analysis of a supported employment program: an experience in Korea. *Journal of Rehabilitation*. 2003;69(1):46-52.
266. Lerner D, Allaire SH, Reisine ST. Work disability resulting from chronic health conditions. *Journal of Occupational and Environmental Medicine*. 2005 Mar;47(3):253-64.
267. Liedberg GM, Hesselstrand ME, Henriksson CM. Time use and activity patterns in women with long-term pain. *Scandinavian Journal of Occupational Therapy*. 2004;11(1):26-35.
268. Lindholm M, Nodlycke B, Martensson L. Personal assistants' conceptions of their cooperation in the rehabilitation of disabled persons. *Scandinavian Journal of Occupational Therapy*. 2005;12(2):72-80.
269. Liu JL, Maniadakis N, Gray A, Rayner M. The economic burden of coronary heart disease in the UK. *Heart*. 2002 Dec;88(6):597-603.
270. Lofland JH, Pizzi L, Frick KD. A review of health-related workplace productivity loss instruments. *Pharmacoeconomics*. 2004;22(3):165-84.
271. Loisel P, Abenhaim L, Durand P, Esdaile JM, Suissa S, Gosselin L, et al. A population-based, randomized clinical trial on back pain management. *Spine*. 1997;22(24):2911-8.
272. Loisel P, Lemaire J, Poitras S, Durand M, Champagne F, Stock S, et al. Cost-benefit and cost-effectiveness analysis of a disability prevention model for

- back pain management: a six year follow up study. *Occupational and Environmental Medicine*. 2002;59(12):807-15.
273. London L. AIDS control and the workplace: the role of occupational health services in South Africa. *International Journal of Health Services*. 1998;28(3):575-91.
274. Lucas J, Bicaku A, Vardanyan A. An adventure into the unknown: creating employment opportunities in eastern Europe. *A Life in the Day*. 2005;9(2):12-7.
275. Lynch J, Krause N, Kaplan GA, Tuomilehto J, Salonen JT. Workplace conditions, socioeconomic status, and the risk of mortality and acute myocardial infarction: the Kuopio Ischemic Heart Disease Risk Factor Study. *American Journal of Public Health*. 1997;87(4):617-22.
276. Lynch WD, Riedel JE, Hymel PA, Loeppke RR, Nelson RW, Ashenfelter JW. Factors affecting the frequency of value-focused health activities and policies by employers. *Journal of Occupational and Environmental Medicine*. 2004 Nov;46(11):1103-14.
277. MacDonald-Wilson K, Rogers ES, Anthony WA. Unique issues in assessing work function among individuals with psychiatric disabilities. *Journal of Occupational Rehabilitation*. 2001;11(3):217-32.
278. MacKenzie EJ, Morris JA, Jr., Jurkovich GJ, Yasui Y, Cushing BM, Burgess AR, et al. Return to work following injury: the role of economic, social, and job-related factors. *American Journal of Public Health*. 1998;88(11):1630-7.
279. Maes S, Verhoeven C, Kittel F, Scholten H. Effects of a Dutch work-site wellness-health program: the Brabantia project. *American Journal of Public Health*. 1998;88(7):1037-41.
280. Mancuso CA, Paget SA, Charlson ME. Adaptations made by rheumatoid arthritis patients to continue working: a pilot study of workplace challenges and successful adaptations. *Arthritis Care and Research*. 2000;13(2):89-99.
281. March L, Lapsley H. What are the costs to society and the potential benefits from the effective management of early rheumatoid arthritis? *Best Practice & Research in Clinical Rheumatology*. 2001 Mar;15(1):171-85.
282. Marini I. What rehabilitation counselors should know to assist Social Security beneficiaries in becoming employed. *WORK: A Journal of Prevention, Assessment & Rehabilitation*. 2003;21(1):37-43.
283. Marini I, Reid CR. A survey of rehabilitation professionals as alternative provider contractors with social security: problems and solutions. *Journal of Rehabilitation*. 2001;67(2):36-41.
284. Marnetoft S, Selander J. Multidisciplinary vocational rehabilitation focusing on work training and case management for unemployed sick-listed people. *International Journal of Rehabilitation Research*. 2000;23(4):271-9.
285. Marquardt U. Avenues into the job market -- the Integrationsfachdienst Hamburg Selective Placement Agency [German]. *Die Rehabilitation*. 2001;40(3):138-44.
286. Martin DJ, Chernoff RA, Buitron M. Tailoring a vocational rehabilitation program to the needs of people with HIV/AIDS: the Harbor-UCLA experience. *Journal of Vocational Rehabilitation*. 2005;22(2):95-103.

287. Matheson LN. Disability methodology redesign: considerations for a new approach to disability determination. *Journal of Occupational Rehabilitation*. 2001;11(3):135-42.
288. McCarthy D, Thompson D, Olson S. Planning a statewide project to convert day treatment to supported employment. *Psychiatric Rehabilitation Journal*. 1998;22(1):30-3.
289. McCrovitz AM. The perception of the job coach in the natural and traditional models. 2001;188.
290. McDonald C, Marston G, Buckley A. Risk technology in Australia: the role of the Job Seeker Classification instrument in employment services. *Critical Social Policy*. 2003;23(4):498-525.
291. McGilloway S, Donnelly M. On the way to work: a vocational training project for people with mental health problems. *A Life in the Day*. 2002;6(4):13-9.
292. McGilloway S, Donnelly M. Work, rehabilitation and mental health. *Journal of Mental Health*. 2000;9(2):199-210.
293. McKivergin M, Wimberly T, Loversidge JM, Fortman RH. Creating a work environment that supports self-care. *Holist Nurs Pract*. 1996 Jan;10(2):78-88.
294. McReynolds CJ. Human immunodeficiency virus (HIV): The psychological and physiological effects of HIV in employment settings. 1998;140.
295. Meeker W, Menke M, Waldorf T, Mootz R. Factors related to acute occupational low back injuries. *JNMS: Journal of the Neuromusculoskeletal System*. 1997;5(2):59-65.
296. Mehrhoff F. Back to work after work injuries and occupational diseases [German]. *Die Rehabilitation*. 1997;36(2):84-91.
297. Melhorn JM, Gardner P. How we prevent prevention of musculoskeletal disorders in the workplace. *Clinical Orthopaedics and Related Research*. 2004;96(75 ref).
298. Merz MA, Bricout JC, Koch LC. Disability and job stress: implications for vocational rehabilitation planning. *WORK: A Journal of Prevention, Assessment & Rehabilitation*. 2001;17(2):85-95.
299. Michael R, Jenkins HJ. Recovery from work-related trauma by perioperative nurses: the effects of social and personal resources. *Collegian*. 2001;8(3):8-13.
300. Miller L, Miller L. A.N.G.E.L.S., Inc. A consumer-run supported employment agency. *Psychiatric Rehabilitation Journal*. 1997;21(2):160-3.
301. Millet P, Sandberg KW. Locus of control and its relationship with vocational rehabilitation of unemployed sick leaves in Sweden. *Journal of Vocational Rehabilitation*. 2003;19(1):59-66.
302. Mitchell DP, Betts A, Epling M. Youth employment, mental health and substance misuse: a challenge to mental health services. *Journal of Psychiatric and Mental Health Nursing*. 2002;9(2):191-8.
303. Momin AKM. Impact of services for people with spinal cord lesion on economic participation. *Asia Pacific Disability Rehabilitation Journal*. 2004;15(2):53-67.
304. Morgan IS, Suderman D. Surviving the employment challenge: wellness to work... 35th Annual Communicating Nursing Research Conference/16th Annual WIN Assembly, "Health Disparities: Meeting the Challenge," held April 18-20, 2002, Palm Springs, California. *Communicating Nursing Research*. 2002;35:362.

305. Moriearty PL, Oulvey E, Lee K. Work productivity in psychiatry - Trends in interventions and outcomes. *Disease Management & Health Outcomes*. 2001;9(10):539-50.
306. Morris JA. Injury experience of temporary workers in a manufacturing setting: factors that increase vulnerability. *AAOHN Journal*. 1999;47(10):470-8.
307. Morris JA, Strasser PB. Family medical leave--management strategies. *Aaohn J*. 2004 Dec;52(12):495-7.
308. Motamedzade M, Shahnavaz H, Kazemnejad A, Azar A, Karimi H. The impact of participatory ergonomics on working conditions, quality, and productivity. *Int J Occup Saf Ergon*. 2003;9(2):135-47.
309. Mount D, Johnstone B, White C, Sherman A. Vocational outcomes: VR service determinants for persons with epilepsy. *Journal of Vocational Rehabilitation*. 2005;23(1):11-20.
310. Moxley DP. Social work strategies and tactics in the workplace: socialization of people with disabilities. *Journal of Social Work in Disability and Rehabilitation*. 2002;1(3):43-60.
311. Moyers PA, Coleman SD. Adaptation of the older worker to occupational challenges. *WORK: A Journal of Prevention, Assessment & Rehabilitation*. 2004;22(2):71-8.
312. Mueser KT, Aalto S, Becker DR, Ogden JS, Wolfe RS, Schiavo D, et al. The effectiveness of skills training for improving outcomes in supported employment. *Psychiatric Services*. 2005;56(10):1254-60.
313. Muller E, Schuler A, Burton BA, Yates GB. Meeting the vocational support needs of individuals with Asperger syndrome and other autism spectrum disabilities. *Journal of Vocational Rehabilitation*. 2003;18(3):163-75.
314. Munz DC, Kohler JM, Greenberg CI. Effectiveness of a comprehensive worksite stress management program: Combining organizational and individual interventions. *International Journal of Stress Management*. 2001 Jan;8(1):49-62.
315. Murakami Y. Job coaching for persons with mental disabilities. *WORK: A Journal of Prevention, Assessment & Rehabilitation*. 1999;12(2):181-8.
316. Muscroft J, Hicks C. A comparison of psychiatric nurses' and general nurses' reported stress and counselling needs: a case study approach. *Journal of Advanced Nursing*. 1998;27(6):1317-25.
317. Nassau DW. The effects of prework functional screening on lowering an employer's injury rate, medical costs, and lost work days. *Spine*. 1999;24(3):269-74.
318. Nathell L. Effects on sick leave of an inpatient rehabilitation programme for asthmatics in a randomized trial. *Scandinavian Journal of Public Health*. 2005;33(1):57-64.
319. Neumeyer-Gromen A, Lampert T, Stark K, Kallischnigg G. Disease management programs for depression: a systematic review and meta-analysis of randomized controlled trials. *Medical Care*. 2004;42(12):1211-21.
320. Niehaus M, Kurth-Laatsch S, Hundling W. The importance of company interests in shaping occupational rehabilitation programmes: empirical findings from company-based retraining [German]. *Die Rehabilitation*. 2001;40(4):235-40.

321. Nielsen ML, Kristensen TS, Smith-Hansen L. The Intervention Project on Absence and Well-being (IPAW): design and results from the baseline of a 5-year study. *Work & Stress*. 2002;16(3):191-206.
322. Nissly JA, Mor Barak ME, Levin A. Stress, Social Support, and Workers' Intentions to Leave Their Jobs in Public Child Welfare. *Administration in Social Work*. 2005;29(1):79-100.
323. Noble JH, Jr. Policy reform dilemmas in promoting employment of persons with severe mental illnesses. *Psychiatric Services*. 1998;49(6):775-81.
324. North FM, Syme SL, Feeney A, Shipley M, Marmot M. Psychosocial work environment and sickness absence among British civil servants: the Whitehall II study. *Am J Public Health*. 1996 Mar;86(3):332-40.
325. Northrop LME. Stress, social support, and burnout in nursing home staff. 1996;88.
326. Novak J, Rogan P, Mank D, DiLeo D. Supported employment and systems change: findings from a national survey of state vocational rehabilitation agencies. *Journal of Vocational Rehabilitation*. 2003;19(3):157-66.
327. O'Donnell C. Toward a national health risk management approach in Australia. *Journal of Allied Health*. 2002;31(1):10-4.
328. O'Flynn D, Craig T. Which way to work? Occupations, vocations and opportunities for mental health service users. *Journal of Mental Health*. 2001;10(1):1-4.
329. Okurowski L, Pransky G, Webster B, Shaw WS, Verma S. Prediction of prolonged work disability in occupational low-back pain based on nurse case management data. *Journal of Occupational and Environmental Medicine*. 2003;45(7):763-70.
330. Olsen GW, Steinberg ME, Ley CA. Worksite influenza immunization programs. Insight into the implementation and cost-benefit. *Aaohn J*. 2005 Mar;53(3):105-10.
331. Olsheski JA, Rosenthal DA, Hamilton M. Disability management and psychosocial rehabilitation: considerations for integration. *WORK: A Journal of Prevention, Assessment & Rehabilitation*. 2002;19(1):63-70.
332. O'Neill JH, Zuger RR, Fields A, Fraser R, Pruce T. The Program Without Walls: innovative approach to state agency vocational rehabilitation of persons with traumatic brain injury. *Archives of Physical Medicine and Rehabilitation*. 2004;85(4).
333. Owens-Johnson LA. Employee views on job development strategies for marketing supported employment. 1997;138.
334. Oxenburgh M, Marlow P. The productivity assessment tool: computer-based cost benefit analysis model for the economic assessment of occupational health and safety interventions in the workplace. *J Safety Res*. 2005;36(3):209-14.
335. Ozanne E. Case management applications in Australia. *Journal of Case Management*. 1996;5(4):153-7.
336. Pandiani JA, Simon MM, Tracy BJ, Banks SM. Impact of multi-agency employment services on employment rates. *Community Mental Health Journal*. 2004;40(4):333-45.
337. Parsons MB, Reid DH, Green CW, Browning LB. Reducing job coach assistance for supported workers with severe multiple disabilities: an alternative off-site/on-site model. *Res Dev Disabil*. 2001 Mar-Apr;22(2):151-64.

338. Parver CP, Levin B. Community-based rehabilitation programs in five countries. *Caring*.1997 Jul; 16(7):26-8.
339. Patterson ID, Bell JS. Supporting staff in employment: the emotional wellbeing of staff in an NHS psychiatric hospital. *Health Bulletin*. 2000;58(5):403-7.
340. Pauly MV, Nicholson S, Xu J, Polsky D, Danzon PM, Murray JF, et al. A general model of the impact of absenteeism on employers and employees. *Health Economics*. 2002 Apr;11(3):221-31.
341. Pelletier B, Boles M, Lynch W. Change in health risks and work productivity over time. *Journal of Occupational and Environmental Medicine*. 2004 Jul;46(7):746-54.
342. Perkins DV, Born DL, Raines JA, Galka SW. Program evaluation from an ecological perspective: supported employment services for persons with serious psychiatric disabilities. *Psychiatric Rehabilitation Journal*. 2005;28(3):217-24.
343. Peter R, Siegrist J. Chronic work stress, sickness absence, and hypertension in middle managers: general or specific sociological explanations? *Social Science & Medicine*. 1997;45(7):1111-20.
344. Phillips H. Investing in everyone: Richmond Fellowship Workschemes' experience of Investors in People. *A Life in the Day*. 2000;4(1):14-7.
345. Piggott L, Sapey B, Wilenius F. Out of touch: local government and disabled people's employment needs. *Disability & Society*. 2005;20(6):599-611.
346. Pizzi LT, Carter CT, Howell JB, Vallow SM, Crawford AG, Frank ED. Work loss, healthcare utilization, and costs among US employees with chronic pain. *Disease Management & Health Outcomes*. 2005;13(3):201-8.
347. Pode L. Ergonomics and people with a disability in the workplace. *British Journal of Therapy & Rehabilitation*.1997 Aug; 4(8):435-6.
348. Polanyi MF, Cole DC, Ferrier SE, Facey M. Paddling upstream: a contextual analysis of implementation of a workplace ergonomic policy at a large newspaper. *Appl Ergon*. 2005 Mar;36(2):231-9.
349. Pransky G, Benjamin K, Hill-Fotouhi C, Fletcher KE, Himmelstein J, Katz JN. Work-related outcomes in occupational low back pain: a multidimensional analysis. *Spine*. 2002;27(8):864-70.
350. Pransky G, Shaw W, McLellan R. Employer attitudes, training, and return-to-work outcomes: a pilot study. *Assistive Technology*. 2001;13(2):131-8.
351. Pransky GS, Shaw WS, Franche R, Clarke A. Disability prevention and communication among workers, physicians, employers, and insurers -- current models and opportunities for improvement. *Disability and Rehabilitation*. 2004;26(11):625-34.
352. Prather H, Foye PM, Stiens SA, Wilder RP, Cianca JC. Industrial medicine and acute musculoskeletal rehabilitation. 6. Occupational health for special populations. *Archives of Physical Medicine and Rehabilitation*.2002 Mar; 83(3):Suppl 1: S25-39.
353. Pratt J, McFadyen A, Hall G, Campbell M, McLay D. A review of the initial outcomes of a return-to-work programme for police officers following injury or illness. *British Journal of Occupational Therapy*. 1997;60(6):253-8.
354. Pravikoff DS. Return to work of the cardiac patient: the effect of work-related self-efficacy, self-concept and self-esteem. 1997;169.

355. Price J, Landry M, Rolfe D, Delos-Reyes F, Groff L, Sternberg L. Women's cardiac rehabilitation: improving access using principles of women's health. *Canadian Journal of Cardiovascular Nursing*. 2005;15(3):32-41.
356. Proper KI, Staal BJ, Hildebrandt VH, van der Beek AJ, van Mechelen W. Effectiveness of physical activity programs at worksites with respect to work-related outcomes. *Scandinavian Journal of Work Environment & Health*. 2002 Apr;28(2):75-84.
357. Pulce R. Optimizing human capital. The necessity of effective investigations. *Seminars for Nurse Managers*. 2002;10(1):7-8.
358. Puolakka K, Kautiainen H, Mottonen T, Hannonen P, Korpela M, Julkunen H, et al. Impact of initial aggressive drug treatment with a combination of disease-modifying antirheumatic drugs on the development of work disability in early rheumatoid arthritis: a five-year randomized followup trial. *Arthritis Rheum*. 2004 Jan;50(1):55-62.
359. Putnam K, McKibbin L. Managing workplace depression: an untapped opportunity for occupational health professionals. *AAOHN Journal*. 2004;52(3):122-31.
360. Quan J, Wadsworth M. Bereavement support. The occupational health nurse's role when death comes to work. *Aaohn J*. 2000 Oct;48(10):461-9.
361. Quimby E, Drake RE, Becker DR. Ethnographic findings from the Washington, DC, vocational services study. *Psychiatric Rehabilitation Journal*. 2001;24(4):368-74.
362. Quinlan M, Mayhew C, Bohle P. The global expansion of precarious employment, work disorganization, and consequences for occupational health: a review of recent research. *International Journal of Health Services*. 2001;31(2):335-414.
363. Quinn MM, Kriebel D, Geiser K, Moure-Eraso R. Sustainable production: a proposed strategy for the work environment. *Am J Ind Med*. 1998 Oct;34(4):297-304.
364. Raak R, Raak A. Work attendance despite headache and its economic impact: a comparison between two workplaces. *Headache*. 2003 Nov-Dec;43(10):1097-101.
365. Randolph DS. Predicting the effect of disability on employment status and income. *WORK: A Journal of Prevention, Assessment & Rehabilitation*. 2004;23(3):257-66.
366. Ranke BAE, Moriarty MP. An overview of professional liability in occupational therapy. *American Journal of Occupational Therapy*. 1997;51(8):671-80.
367. Reed CA, Rumrill PD, Jr. Supported employment: principles and practices for interdisciplinary collaboration. *WORK: A Journal of Prevention, Assessment & Rehabilitation*. 1997;9(3):237-44.
368. Reissman DB, Orris P, Lacey R, Hartman DE. Downsizing, role demands, and job stress. *J Occup Environ Med*. 1999 Apr;41(4):289-93.
369. Rice-Oxley M, Turner-Stokes L. Effectiveness of brain injury rehabilitation. *Clinical Rehabilitation*. 1999;13(1):7-24.
370. Riedel JE, Lynch W, Baase C, Hymel P, Peterson KW. The effect of disease prevention and health promotion on workplace productivity: A literature review. *American Journal of Health Promotion*. 2001 Jan-Feb;15(3):167-+.
371. Riotto M. Depression in the workplace: negative effects, perspective on drug costs and benefit solutions. *Benefits Q*. 2001;17(2):37-48.

372. Roberts S, Fallon LF, Jr. Administrative issues related to addiction in the workplace. *Occup Med.* 2001 Jul-Sep;16(3):509-15, v.
373. Roessler RT. Improving job tenure outcomes for people with disabilities: the 3M model. *Rehabilitation Counseling Bulletin.* 2002 Summer; 45(4):207-12.
374. Roessler RT, Rumrill PD, Jr. Multiple sclerosis and employment barriers: a systemic perspective on diagnosis and intervention. *WORK: A Journal of Prevention, Assessment & Rehabilitation.* 2003;21(1):17-23.
375. Roessler RT, Rumrill PD, Fitzgerald SM. Factors affecting the job satisfaction of employed adults with multiple sclerosis. *Journal of Rehabilitation.* 2004;70(3):42-50.
376. Rogers JB, Bishop M, Crystal RM. Predicting rehabilitation outcome for supplemental security income and social security disability income recipients: implications for consideration with the ticket to work program. *Journal of Rehabilitation.* 2005;71(3):5-10.
377. Rogers S. To work or not to work: that is not the question. *Journal of Psychosocial Nursing and Mental Health Services.* 1998;36(4):42-8.
378. Rollins AL, Mueser KT, Bond GR, Becker DR. Social relationships at work: does the employment model make a difference? *Psychiatric Rehabilitation Journal.* 2002;26(1):51-61.
379. Rose V, Perz J. Is CBT useful in vocational rehabilitation for people with a psychiatric disability? *Psychiatric Rehabilitation Journal.* 2005;29(1):56-8.
380. Rosenthal DA, Olsheski JA. Disability management and rehabilitation counseling: present and future opportunities. *Journal of Rehabilitation.* 1999;65(1):31-8.
381. Rothman EF, Perry MJ. Intimate partner abuse perpetrated by employees. *J Occup Health Psychol.* 2004 Jul;9(3):238-46.
382. Rumrill PD, Jr. Enhancing the employment potential of people with diabetes mellitus: guidelines for research and practice. *WORK: A Journal of Prevention, Assessment & Rehabilitation.* 1997;9(2):157-61.
383. Salmond S, Ropis PE. Research for practice. Job stress and general well-being: a comparative study of medical-surgical and home care nurses. *MEDSURG Nursing.* 2005;14(5):301-9.
384. Schmal A, Niehaus M, Heinrich T. Company approaches concerning workers with performance alterations or disablement: interview findings on the perspectives of the various actors involved [German]. *Die Rehabilitation.* 2001;40(4):241-6.
385. Schneider J. Models of specialist employment for people with mental health problems. *Health & Social Care in the Community.* 1998 Mar;6(2):120-9.
386. Schneider J. Work interventions in mental health care: some arguments and recent evidence. *Journal of Mental Health.* 1998;7(1):81-94.
387. Schneider WJ, Furth PA, Blalock TH, Sherrill TA. A pilot study of a headache program in the workplace. The effect of education. *J Occup Environ Med.* 1999 Mar;41(3):202-9.
388. Schonstein E, Kenny DT, Keating J, Koes BW. Work conditioning, work hardening and functional restoration for workers with back and neck pain. *The Cochrane Library.* 2005;4.
389. Schott RL. Managers and mental health: mental illness and the workplace. *Public Personnel Management.* 1999;28(2):161-83.

390. Schwanke TD, Smith RO. Assistive technology outcomes in work settings. *WORK: A Journal of Prevention, Assessment & Rehabilitation*. 2005;24(2):195-204.
391. Scott J. Benefits. Benefits flexibility pilots -- a chance to put the arguments to the test. *A Life in the Day*. 2000;4(3):28-30.
392. Scott J. Benefits. The minimum wage on therapeutic earnings? How about self-employment? *A Life in the Day*. 2000;4(1):30-2.
393. Secker J, Grove B, Seebohm P. Challenging barriers to employment, training and education for mental health service users: the service user's perspective. *Journal of Mental Health*. 2001;10(4):395-404.
394. Seekins T, Arnold N. Self-employment and economic leadership as two promising perspectives on rural disability and work. *WORK: A Journal of Prevention, Assessment & Rehabilitation*. 1999;12(3):213-22.
395. Seers K. Review: intensive multidisciplinary biopsychosocial rehabilitation reduces pain and improves function in chronic low back pain. *Evidence Based Nursing*. 2002;5(4):116.
396. Selander J, Marnetoft S. Case management in vocational rehabilitation: a case study with promising results. *WORK: A Journal of Prevention, Assessment & Rehabilitation*. 2005;24(3):297-304.
397. Serxner S, Gold D, Anderson D, Williams D. The impact of a worksite health promotion program on short-term disability usage. *Journal of Occupational and Environmental Medicine*. 2001;43(1):25-9.
398. Shankar J, Collyer F. Vocational rehabilitation of people with mental illness: the need for a broader approach. *Australian e Journal for the Advancement of Mental Health*. 2003;2(2):1-13.
399. Shankar J, Collyer F. Welfare reform and its impact on the employment prospects of individuals with psychiatric disabilities. *Journal of Social Work in Disability and Rehabilitation*. 2004;3(4):19-44.
400. Shaw L, Sumsion T, McWilliam C, MacKinnon J. Service provider perspectives on including consumers in the vocational rehabilitation process. *Journal of Vocational Rehabilitation*. 2004;21(3):123-36.
401. Shaw LR, McMahon BT, Chan F, Taylor D, Wood C. Survey of rehabilitation counselor education programs regarding health care case management in the private sector. *Journal of Rehabilitation*. 1997;63(3):46-52.
402. Shaw WS, Pransky G, Patterson W, Winters T. Early disability risk factors for low back pain assessed at outpatient occupational health clinics. *Spine*. 2005;30(5):572-80.
403. Shephard RJ. Do work-site exercise and health programs work? *Physician and Sportsmedicine*. 1999 Feb; 27(2):48-50.
404. Sherman TA. A place in the work force. A cup of ambition. *InsideMS*. 2001;19(4):49-52.
405. Shimazu A, Shimazu M, Odara T. Divergent effects of active coping on psychological distress in the context of the job demands-control-support model: the roles of job control and social support. *International Journal of Behavioral Medicine*. 2005;12(3):192-8.
406. Shirey MR. Social support in the workplace: nurse leader implications. *Nursing Economics*. 2004;22(6):313-9.

407. Smits SJ. Disability and Employment in the USA: The Quest for Best Practices. *Disability & Society*. 2004 Oct;19(6):647-62.
408. Spetz JE. Wages and employment of nurses: an analysis of demand and implications for policy. 1996;171.
409. St. Clair DM. Current streamlining strategies: restructuring vocational rehabilitation's vision into the twenty-first century. 2000;86.
410. Stein AD, Karel T, Zuidema R. Carrots and sticks: Impact of an incentive disincentive employee flexible credit benefit plan on health status and medical costs. *American Journal of Health Promotion*. 1999 May-Jun;13(5):260-7.
411. Stein F. Occupational stress, relaxation therapies, exercise and biofeedback. *WORK: A Journal of Prevention, Assessment & Rehabilitation*. 2001;17(3):235-45.
412. Stevens M. Presenteeism and productivity. *Business & Health*. 2004;15.
413. Stiller K, McInnes M, Huff N, Hall B. Do exercises prevent musculoskeletal complications after cardiac surgery? *Physiotherapy Theory and Practice*. 1997;13(2):117-26.
414. Storey K. A review of research on natural support interventions in the workplace for people with disabilities. *International Journal of Rehabilitation Research*. 2003;26(2):79-84.
415. Stromwall LK, Hurdle D. Psychiatric rehabilitation: an empowerment-based approach to mental health services. *Health and Social Work*. 2003;28(3):206-13.
416. Strutton DR. The impact of treatment and treatment interactions on employment outcomes for individuals with schizophrenia and other severe mental disorders. 2003;231.
417. Sullivan MJL, Ward LC, Tripp D, French DJ, Adams H, Stanish WD. Secondary prevention of work disability: community-based psychosocial intervention for musculoskeletal disorders. *Journal of Occupational Rehabilitation*. 2005;15(3):377-92.
418. Tansey TN, Bishop M, Smart JF. Recruitment in rehabilitation counseling: maximizing benefits for graduate programs and the state-federal VR system. *Rehabilitation Education*. 2004;18(1):49-59.
419. Teasdale TW, Engberg AW. Disability pensions in relation to stroke: a population study. *Brain Injury*. 2002;16(11):997-1009.
420. Thara R. People with schizophrenia believe that they are stigmatised at work and in the community. *Evidence Based Mental Health*. 2003;6(3).
421. Theorell T, Oxenstierna G, Westerlund H, Ferrie J, Hagberg J, Alfredsson L. Downsizing of staff is associated with lowered medically certified sick leave in female employees. *Occupational and Environmental Medicine*. 2003;60(9).
422. Therriault P, Streit U, Rheaume J. Paradoxical situation in the organization of work: a threat for workers' mental health [French]. *Sante Mentale Au Quebec*. 2004;29(1):173-200.
423. Thio S. Towards a unified program of rehabilitation for those with psychiatric disabilities in Singapore. *Psychiatric Rehabilitation Journal*. 2002;26(1):3-12.
424. Thomas DF, Botterbusch KF. The Vocational Assessment Protocol for school-to-work transition programs. *Journal of Head Trauma Rehabilitation*. 1997;12(2):48-66.

- 425. Thomas NI. Factors associated with work-related injury among central Arkansas veterans healthcare system employees: A case-control study. 2003;145.
- 426. Thrift J. Case managers at the helm of return-to-productivity programs. *Case Manager*. 1999 Jul-Aug;10(4):75-9.
- 427. Timmons JC, Fesko SL. Responding to employment needs: strategies for supporting individuals with HIV/AIDS. *Journal of HIV/AIDS and Social Services*. 2002;1(3):7-25.
- 428. Timmons JC, Fesko SL, Cohen A. Merging cultural differences and professional identities: strategies for maximizing collaborative efforts during the implementation of the Workforce Investment Act. *Journal of Rehabilitation*. 2004;70(1):19-27.
- 429. Timpka T, Leijon M, Karlsson G, Svensson L, Bjurulf P. Long-term economic effects of team-based clinical case management of patients with chronic minor disease and long-term absence from working life. *Scandinavian Journal of Social Medicine*. 1997 Dec;25(4):229-37.
- 430. Trach JS, Shelden DL. Natural supports as a foundation for support-based employment development and facilitation. *American Rehabilitation*. 1999;25(2):2-7.
- 431. Tsai JH, Salazar MK, Graham KY, Brines J. Case management for injured workers: a descriptive study using a record review. *AAOHN Journal*. 1999;47(9):405-15.
- 432. Tsang HWH, Pearson V. Reliability and validity of a simple measure for assessing the social skills of people with schizophrenia necessary for seeking and securing a job. *Canadian Journal of Occupational Therapy*. 2000;67(4):250-9.
- 433. Tsutsumi A, Kayaba K, Tsutsumi K, Igarashi M. Association between job strain and prevalence of hypertension: a cross sectional analysis in a Japanese working population with a wide range of occupations: the Jichi Medical School cohort study. *Occupational and Environmental Medicine*. 2001;58(6):367-73.
- 434. Tuchin PJ. Spinal care education as a preventative strategy for occupational health & safety: a new role for chiropractors. *Australasian Chiropractic & Osteopathy*. 1998;7(1):8-14.
- 435. Ursic C. Integration of unemployed persons with disabilities into the labour market in Slovenia. *International Journal of Rehabilitation Research*. 1998;21(4):415-8.
- 436. Ursic C, Vidmar J. The right to equal opportunity and treatment: employment of persons with disabilities in Slovenia. *International Journal of Rehabilitation Research*. 2004;27(4):317-20.
- 437. Vaananen-Tomppo I, Janatuinen E, Tornqvist R. All well at work? Evaluation of workplace-based early rehabilitation in the Finnish State administration. *International Journal of Rehabilitation Research*. 2001;24(3):171-80.
- 438. Vahtera J, Kivimaki M, Forma P, Wikstrom J, Halmeenmaki T, Linna A, et al. Organisational downsizing as a predictor of disability pension: the 10-town prospective cohort study. *Journal of Epidemiology and Community Health*. 2005;59(3):238-42.
- 439. Van Audenhove C, Lissens G. Gaining insight from experience: lessons from a Flemish employment programme. *A Life in the Day*. 2001;5(1):14-21.

440. Van Den Bergh N. Getting a Piece of the Pie: Cultural Competence for GLBT Employees at the Workplace. *Journal of Human Behavior in the Social Environment*. 2003;8(2-3):55-73.
441. van der Ploeg E, Kleber RJ. Acute and chronic job stressors among ambulance personnel: predictors of health symptoms. *Occupational and Environmental Medicine*. 2003;6(39 ref).
442. Van Lieshout R. Increasing the employment of people with disabilities through the Business Leadership Network. *Journal of Vocational Rehabilitation*. 2001;16(2):77-81.
443. Van Ormer EA. Developmental status as a predictor of outcomes in a vocational rehabilitation program. 2001;153.
444. Van Wyk B PVSLZM. Preventive staff-support interventions for health workers. Van Wyk B, Pillay. 2002.
445. Vanderheiden PA, De Meuse KP, Bergmann TJ. Response to Haar's comment -- and the beat goes on: corporate downsizing in the twenty-first century. *Human Resource Management*. 1999;38(3):261-7.
446. VanTol BC. Workplace Disability Management Inventory: Development of a screening instrument. 1998;146.
447. Velema JP, Cornielje H. Reflect before you act: providing structure to the evaluation of rehabilitation programmes. *Disability and Rehabilitation*. 2003;25(22):1252-64.
448. Vestling M, Tufvesson B, Iwarsson S. Indicators for return to work after stroke and the importance of work for subjective well-being and life satisfaction. *Journal of Rehabilitation Medicine*. 2003;35(3):127-31.
449. Vicente-Herrero T, Burke TA, Lainez MJA. The impact of a worksite migraine intervention program on work productivity, productivity costs, and non-workplace impairment among Spanish postal service employees from an employer perspective. *Current Medical Research and Opinion*. 2004 Nov;20(11):1805-14.
450. Vines SW, Cox A, Nicoll L, Garrett S. Effects of a multimodal pain rehabilitation program: a pilot study. *Rehabilitation Nursing*. 1996 Jan-Feb; 21(1):25-30.
451. Vingard E, Lindberg P, Josephson M, Voss M, Heijbel B, Alfredsson L, et al. Long-term sick-listing among women in the public sector and its associations with age, social situation, lifestyle, and work factors: a three-year follow-up study. *Scandinavian Journal of Public Health*. 2005;33(5):370-5.
452. Voit S. Work-site health and fitness programs: impact on the employee and employer. *WORK: A Journal of Prevention, Assessment & Rehabilitation*. 2001;16(3):273-86.
453. Waghorn G, Lloyd C. The employment of people with mental illness. *Australian e Journal for the Advancement of Mental Health*. 2005;4(2):1-43.
454. Wallick WG, Bruch LA. Disability and work topics in graduate human resource curricula: recommendations for rehabilitation counselor educators. *Rehabilitation Education*. 2003;17(4):237-47.
455. Ward KS, Parsons LC. Managing work-related stress in time of uncertainty: a care plan for the caregiver. *SCI Nursing*. 2000;17(2):59-63.
456. Ward KS, Parsons LC, Krau SD. Managing the stress of caring for rehabilitation patients. *Critical Care Nursing Clinics of North America*. 2001;13(3):463-9.

457. Warner R. Work disincentives in US disability pension programs. *Journal of Mental Health*. 2001;10(4):405-9.
458. Watson RL, Duckett DA. Clinical management of a work rehabilitation program in a rural setting. *Journal of Back and Musculoskeletal Rehabilitation*. 2000;14(1/2):11-6.
459. Wehman P, Revell G, Kregel J. Supported employment: a decade of rapid growth and impact. *American Rehabilitation*. 1998;24(1):31-43.
460. Wendt S. Restructuring the segregate job market for people with disabilities in light of legislative reform in rehabilitation -- implications for the workshops for the disabled [German]. *Die Rehabilitation*. 2001;40(2):92-6.
461. West MD, Targett P, Steininger G, Anglin N. Project Corporate Support (CORPS): a model demonstration project on workplace supports. *Journal of Vocational Rehabilitation*. 2001;16(2):111-8.
462. Westmorland MG, Williams R. Rehabilitation in practice. Employers and policy makers can make a difference to the employment of persons with disabilities. *Disability and Rehabilitation*. 2002;24(15):802-9.
463. Wheeler-Scruggs K. Discerning characteristics and risk factors of people who are deaf and low functioning. *Journal of Rehabilitation*. 2003;69(4):39-46.
464. White C. Preventing injuries at work. *Nursing Times*. 1999 Aug 25-31; 95(34):54.
465. Wiggers JH, Sanson-Fisher R. Practitioner provision of preventive care in general practice consultations: association with patient educational and occupational status. *Social Science & Medicine*. 1997;44(2):137-46.
466. Wilbur J, Naftzger-Kang L, Miller AM, Chandler P, Montgomery A. Women's occupations, energy expenditure, and cardiovascular risk factors. *Journal of Women's Health*. 1999;8(3):377-87.
467. Williams DA, Feuerstein M, Durbin D, Pezzullo J. Health care and indemnity costs across the natural history of disability in occupational low back pain. *Spine*. 1998;23(21):2329-36.
468. Williams ER. Work Personality Profile: validation within the supported employment environment. *Journal of Rehabilitation*. 1997;63(2):26-30.
469. Williams RM, Westmorland M. Perspectives on workplace disability management: a review of the literature. *WORK: A Journal of Prevention, Assessment & Rehabilitation*. 2002;19(1):87-93.
470. Wingruber M. Employment support for people with acquired brain damage -- the Mutabor Concept [German]. *Die Rehabilitation*. 1997;36(4):250-5.
471. Winkel J, Christmasson M, Cyren H, Engstrom T, Forsman M, Hansson GA, et al. A Swedish industrial research program 'Co-operative for Optimization of Industrial Production Systems Regarding Productivity and Ergonomics' (COPE). *Am J Ind Med*. 1999 Sep;Suppl 1:82-5.
472. Wittwer U. The future of vocational rehabilitation -- vocational rehabilitation for the future. Looking into the federal government's austerity package [German]. *Die Rehabilitation*. 1997;36(1):22-5.
473. Wong R, Wan M. Experience in developing a transitional employment program (TEP) for the psychiatric patients in an acute general hospital in Hong Kong. *WORK: A Journal of Prevention, Assessment & Rehabilitation*. 2000;14(3):229-36.
474. Wood EA. Lifestyle risk factors and absenteeism trends -- a six-year corporate study. *AWHP'S Worksite Health*. 1997;4(2):32-5.

- 475. Wright DW, Beard MJ, Edington DW. Association of health risks with the cost of time away from work. *Journal of Occupational and Environmental Medicine*. 2002 Dec;44(12):1126-34.
- 476. Wyman DO. Evaluating patients for return to work. *American Family Physician*. 1999;59(4):844-8.
- 477. Yandrick RM. The Preventive Approach to Reducing Workplace Problems. *Behavioral Healthcare Tomorrow*. 1995 Sep-Oct;4(5):30-5.
- 478. Zavala SK, French MT, Zarkin GA, Omachonu VK. Decision latitude and workload demand: Implications for full and partial absenteeism. *Journal of Public Health Policy*. 2002;23(3):344-61.